



State-Corporate Crime and Ecocide: A Critical Study of the Carmichael Coal Mine

by

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Submitted in fulfilment of the requirements for the Doctor of Philosophy

University of Tasmania May 2019

Declaration of Originality

This thesis contains no material which has been accepted for a degree or diploma by the University or any other institution, except by way of background information and duly acknowledged in the thesis, and to the best of my knowledge and belief no material previously published or written by another person except where due acknowledgement is made in the text of the thesis, nor does the thesis contain any material that infringes copyright.

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Chapter Five: States and Corporations in Denial

Portions of this thesis chapter have been published in Salama, O. and White, R.D. (2017) 'Dissent, Litigation and Investigation: Hitting the Powerful Where it Hurts', *Critical Criminology*, 25(1):1-15.

Chapter Nine: Ecocide

Portions of this thesis chapter have been published in White, R. and Hasler, O. (2019) 'Ecocide: Violence against the planet', in DeKeseredy, W.S., Rennison, C.M., and Hall-Sanchez, A.K. (eds), *The Routledge International Handbook of Violence Studies*, Milton Park: Routledge.

Acknowledgements

The PhD process is notoriously isolating, and PhDs pursued internationally can be even more so. I am grateful to be fortunate enough to have found a “home away from home” in Tasmania and a welcoming group of people that I feel I have known my entire life. I could not have done this without you.

To my family in New Jersey, thank you for supporting me in my move to the other side of the planet so that I could be the first in our family to pursue this degree.

Loene, thank you for the chats and coffee and reminding me that we are all only human after all.

Rob and Reece, thank you for your supervision and advice.

Joanne and Bonnie, your support and solidarity has meant the world.

Bianca, thank you for listening to all of it.

Andrew, thank you for your infinite patience and kindness, your unwavering support, unconditional love and of course, your lasagne. I am so happy to have found you here waiting for me here all along.

Activism works. So act.

-Greta Thunberg

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Chapter One

INTRODUCTION

“[I]mmediate global action to curb future [global] warming is essential to secure a future for coral reefs” – 46 scientists (Hughes et al., 2015: 373).

“The likely climate impacts from the opening of the Galilee Basin are both significant and are currently unaccounted for in Australia’s assessment and approval process...It’s enough to make you question our governments’ commitment to cutting global emissions” (Duus, 2012).

“Green criminology must continue to consider the ways in which environmental harms, regardless of their origin, stem from and are permitted by particular relations of power and selective criminalisation” (Brisman 2010: 62).

Introduction

This thesis provides a substantive case study of the Carmichael Coal Mine and Rail Project ('Carmichael Project'). The study is an exegesis of Adani's proposed mega coal mine in Queensland, including the intricacies of political decision-making, and how this case informs, critiques and develops global discourses in ecocide. It adopts an expedition in archaeological and contemporary knowledge and explores the background, politics and reasoning of the Australian governments' multiple decisions to approve and support what will be the world's largest-ever coal mine. It examines processes of political decision-making during a period of global economic coal down-turn, amidst an unprecedented period of coal industry bankruptcy and redundancy, and at a time when continued coal production is predicted to cause devastating green-house gas emissions and climate change. This thesis, as discussed later in Chapter Two, draws on a unique and originally constructed archive comprising diverse and multiple sources not previously compiled. This extensive dataset is an authoritative library and forms the basis underpinning the analyses of this thesis.

As an exercise in green criminology, this thesis recognises that environmental degradation is often the result of crimes of the powerful; that is, it arises through their actions and inactions, justifications and denials of state and corporate actors. The thesis not only presents the story of who the stakeholders are and why they want to see the Carmichael Project approved, but it also argues for the need to establish an international law against ecocide – the term that arguably encompasses the environmental destruction which would result from the Project – to prevent the possibility of approval for similar projects in the future.

This chapter provides an overview of what this thesis is about, how the study originated and the significance of the study. It describes the criminological lens of analysis and concludes with an outline of thesis chapters.

Why the Carmichael Project?

My interest in the Carmichael Project mainly arose from reading two news articles. The first, a Guardian article from 16 March 2016 titled, *Peabody Energy, World's Largest Private Coalminer, May File for Bankruptcy*, described the U.S. coal mining company's decline as long time coming (Walters 2016). Although Peabody was still profitable, the company had been struggling to pay back the loans it had taken out in order to fund new mines in Australia and to buy coal from the U.S. government. It was faced with plummeting global coal prices caused in part by the natural gas sector emerging as a competitor and environmentalist movements against the burning of fossil fuels as well as environmental regulations in the US and economic uncertainty abroad. Yet, another, less obvious (and more sinister) reason why the so-called 'king of coal' was driven to bankruptcy was uncovered: Peabody had been under an eight-year investigation by New York Attorney General Eric Schneiderman for violating state laws that prohibit misleading conduct. The company's public statements were at odds with its private actions. In public, Peabody had agreed that it was unable to predict the impacts of future policies on its revenues. In private, according to Schneiderman, the company circulated projections of the likely damaging effect that future laws and regulations governing the coal industry would have on its business (Walters 2016).

This article led me on a small investigation of Peabody. I was particularly interested in the company's deception and wanted to find similarities between the topic of Schneiderman's case and Peabody's previous dishonest practices. What I discovered was perhaps unsurprising to

those familiar with corporate public relations campaigns, but exciting to me: Peabody Energy had been the leader of the global pro-coal campaign, spending millions of dollars on public relations campaigns in order to prevent its demise. These campaigns included its ‘clean coal’ advertisement, which the British Advertising Standards Authority ruled as misleading consumers to believe that ‘clean coal’ processes do not produce greenhouse gas emissions (Loh 2014); and its ‘Advance Energy for Life’ advertisement, which argued that using coal for electricity will lift millions of people in developing countries out of poverty (Goldenberg 2015). Peabody also lobbied the US government extensively, including sending the White House’s Council on Environmental Quality a submission which claimed ‘the relationship between GHG emissions and any climate change has not been proven’ (Peabody Energy 2015: 10). These expensive public relations campaigns coupled with the changing climate of the coal industry led Peabody to join the other recently bankrupted coal companies.

The Peabody article not only alerted me to the state of the coal industry in the United States and the world, but also served as the catalyst for my interest in the influence of corporations and their public relations teams and their techniques of neutralising and denying harm. More specifically, I was interested in the scripts that industries that are ‘obviously’ harmful to the environment (based on CO₂ emissions and harms to species and natural resources), such as coal mining, use to justify and promote their projects and maintain a working relationship with governments and journalists.

The Peabody article led me to assume that the coal giant’s bankruptcy would signal a change in the way new coal mining projects would proceed. If they were to be successful, they would have to update their public relations to combat environmental activism and citizens’ ‘green’ awareness at a time of widespread information sharing and social media. This, to me, meant that any large-scale coal mining project should be investigated, especially if it receives the support of government. In other words, “something had to be up” for a coal mining project to seriously be considered at a time when coal is not viable, both environmentally and economically.

My thinking was: How could any person or government deny the direct causal relationship between the burning of coal and increased greenhouse gas emissions (which has been proven to contribute to the warming of the Earth and cause climate change) *now*? Although there were many indicators that ‘coal is dead’ – including Peabody’s fate – and that the future of energy lies with renewable energy, there were indicators that status quo would not give up its power so easily. President Trump, for example, withdrew the U.S. from the Paris Agreement, championed climate change sceptics and drastically cut funding for the US Environmental Protection Agency.

A couple of weeks after reading that Guardian article I came across an ABC article titled *Carmichael coal mine: Mining leases approved for \$21 billion project in Queensland’s Galilee Basin* (ABC 2016). This article was interesting to me for a couple of reasons. First, 2015 statistics ranked Australia as the fifth largest producer of coal and first largest exporter of coal by volume in the world (Australian Government 2016a). In 2015-2016, 54% of Australia’s coal was mined in Queensland and most of the coal mined throughout the country was exported to eastern Asia (Australian Government 2016a). Then in April 2016, the Queensland Government approved Adani’s mining lease for what would be the state’s 51st coal mine, the \$21.7 billion Carmichael Coal Mine (ABC 2016b). If built, the Carmichael Mine will release 40-60 million tonnes of thermal coal annually. Once burnt, this coal will produce 4.7 billion tonnes of greenhouse gases (GHGs), which represents 0.6% of the global carbon budget that is necessary

in order to prevent Earth's temperatures from rising 2 degrees (Taylor and Meinshausen 2014). The Great Barrier Reef, already suffering from unprecedented coral bleaching, would 'cease to exist' if GHG emissions continue on par with current trends (Milman 2014a) because an increase in carbon levels in the atmosphere cause the ocean, a 'heat sink', to acidify from its rise in temperature (Australian Government 2017a) and an acidified ocean cannot sustain coral life (Hoegh-Guldberg et al. 2007). The Carmichael Project also involves the construction of a railway line to ship the coal to the eastern coast, where it would then be transported through the Great Barrier Reef to India (Slezak 2017a).

Australia, a high polluter of greenhouse gases, had – unlike the U.S. – *not* withdrawn from the Paris Agreement. Instead, Australia had set a target to reduce its emissions by 26-28 percent below 2005 levels by 2030, building on their 2020 target of reducing emissions by five percent below 2000 levels, in order to prevent the global average temperature rising above 2°C (Australian Government 2015a). Yet despite the low price of coal and environmental movements that contributed to Peabody's bankruptcy, the Australian government was approving a mine – the biggest coal mine in the world. I set out to study *why*, contrary to all of the evidence against coal and international movements against climate change, this mine was not being stopped but instead championed by the Australian federal and Queensland state governments. I also set out to study *how* this was happening: What were the arguments for the mine? Were the arguments similar to those made by Peabody? If so, what does this tell us about the nature of the coal industry's methods of persuasion? How could this mine be stopped; what are the best practices for environmental activists?

The Study

These news articles and the questions they provoked led me on a much larger investigation of Adani, the Carmichael Project, and the Australian government. At the beginning of my thesis, in the data collecting phase, I was surprised by the similarities between the justifications for the Carmichael Project and Peabody's campaigns. The scripts seemed to be taken from the same 'book' – if one should exist – of denying environmental harm and promoting coal in the name of the economy and, ironically, in the name of morality. Based on these findings, I sought to investigate the Carmichael Project as, first, a state-corporate crime, and then more specifically as a potential crime of ecocide. Thus, a research project was formed.

Aims

Scientists have already been able to map and predict the harms that will follow should the Carmichael Project go ahead. The various scientific predictions about the negative impacts on the Great Barrier Reef, the surrounding flora and fauna, land and water; and the proposed greenhouse gas emissions and climate change; are fairly emphatic. I have compiled an outline of the Project's harms to land, water, air, and the Great Barrier Reef at the forefront of this thesis, in Chapter Four, in order to provide a description of what is at stake should the Project begin to operate. A primary aim of this study is to examine whether the Australian government's approval and support for the Project, in light of these predicted harms, can form the basis for a case of ecocide.

Ecocide involves transgressions that violate the principles of environmental justice (for humans), ecological justice (for ecosystems) and species justice (for non-human species and plant life) (White 2014a). These transgressions are not only apparent in relation to environmental victims (both human and non-human) but also have temporal dimensions that

traverse the past, present and future. The causes of ecocide stem from current systems of production and consumption, controlled by transnational corporations and states, that relies on exploitation of the environmental resources for profit.

This thesis acknowledges that the Carmichael Project cannot be studied as an event or entity that perpetuates harm on its own. In other words, the Carmichael Project is not afforded the personhood that is often legally granted to corporations in order to shield the stakeholders from responsibility for these harms (more on this in Chapters Seven and Eight). This study seeks to investigate the men and women in both the corporate and government sectors who are invested in seeing the Carmichael Project come to fruition. By examining their stakeholder interests and rationales behind granting numerous approvals for the building and operation of the Project, the social, ideological, and institutional facilitators of the harms that would result from the Carmichael Project's operation are examined as a potential state-corporate crime. This entails critically exploring the relationship between the mining industry and the Australian government, including an analysis of Australia's mining legislation (i.e. the processes through which the Carmichael Project was able to gain legislative approval) and the media's framing of the events surrounding the Project. Furthermore, this thesis aims to propose a potential solution to prevent similar projects from being granted the approval to operate in the future through a discussion of the criminalisation of ecocide. Through a discussion of the 'red flags' that arise out of the Carmichael Project's timeline of approvals, several suggestions are made that could potentially safeguard ecosystems such as the Great Barrier Reef and help assure intergenerational equity of the planet from future environmentally destructive project proposals.

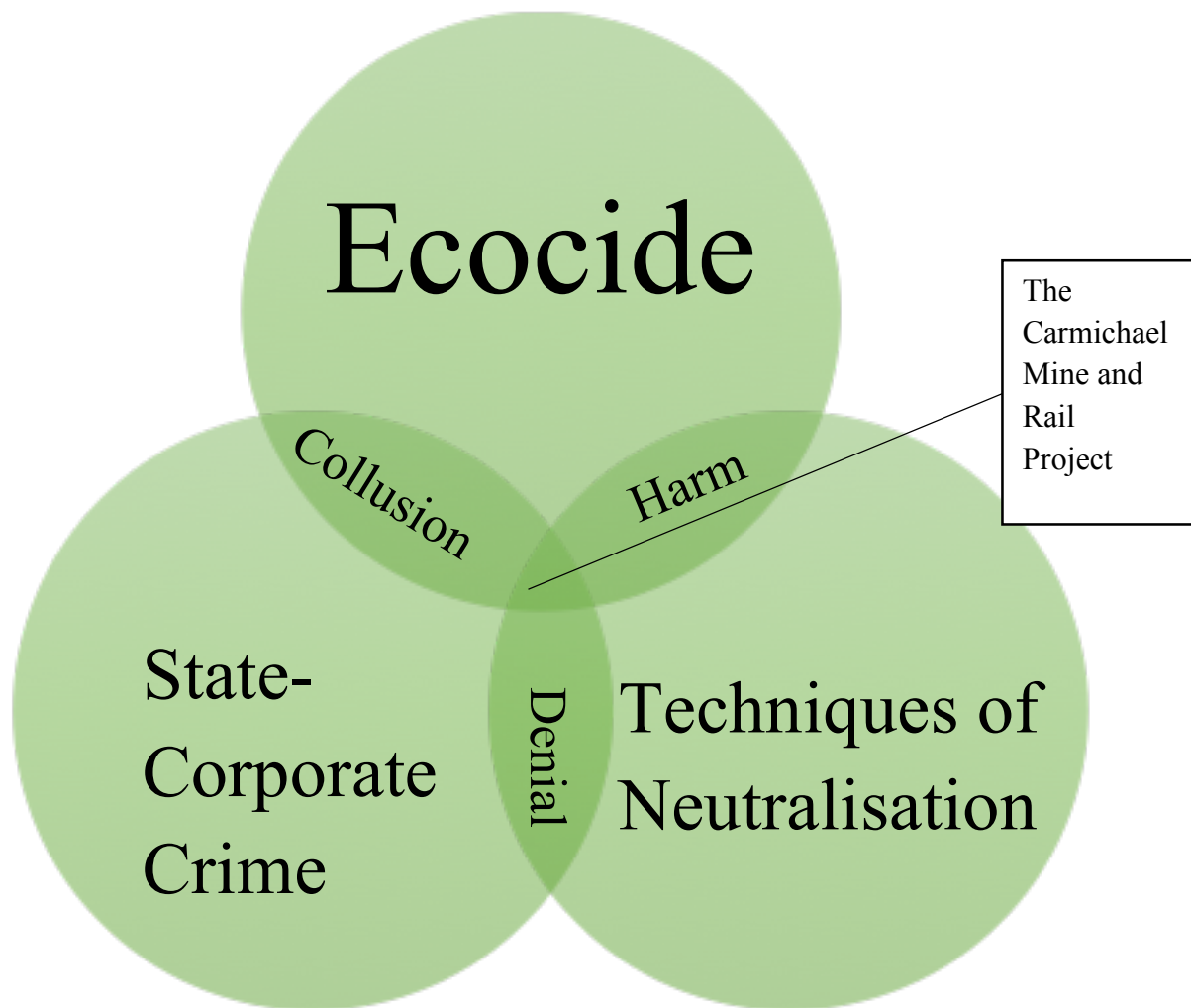
Research question

In order to investigate the circumstances under which a demonstrably harmful resource extraction project, the Carmichael Mine and Rail Project (referred to as 'the Carmichael Project' or 'the Project'), carried out by a private mining company, Adani, has received Australian state and federal approval, this thesis is guided by one central research question, namely:

Does the collusion between the Australian Federal and Queensland State Governments and the Adani Corporation constitute a conspiracy to commit an act of ecocide insofar as the consequence and outcome of the Carmichael Coal Mine and Rail Project is gross environmental harm and destruction of the Great Barrier Reef?

The focus of the thesis is 'ecocide' and the 'Carmichael Project', and both are on trial through each other. If ecocide has any merit or future in international law, I want to investigate how it stacks up against a watershed, historical and pivotal environmental moment in Australian history; involving the greatest predicted environmental catastrophe of our time. If the Carmichael Project is not an act of ecocide, then it can be argued ecocide – as a legal concept – needs to be re-theorised and its parameters restructured. If it is, then we are entering a new era for dealing with corporate and state environmental destruction – one that should involve the ICC and its environmental chamber, as it has been called for since 1990. In other words, the thesis is about testing the validity of ecocide by testing a live and hotly contested contemporary case study – Adani's Carmichael Project. To do so, I have developed a tripartite test, depicted in Figure 1.1 below.

Figure 1.1 Testing the Carmichael Project as Ecocide



Theoretical perspectives

The criminological concepts of harm, collusion and denial become the means by which to test the Carmichael Project as a case of potential future ecocide, as the concept of ecocide currently stands. The motivation and intent of Adani and the Australian governments is assessed using techniques of neutralisation. The extensive damage or loss of ecosystem is assessed through harm. Together, they constitute the key principles– the intent of the actors and the act itself – of ecocide.

These three key organisational concepts make up the lens through which I interpret the data of this research. The preliminary discussion of the concepts below is elaborated in greater detail in subsequent chapters along with relevant commentary.

‘Techniques of neutralisation’ are rhetorical devices used to deny or neutralise harm either *before or during* an act, in order to allow a criminal act to occur, or *after* a criminal act takes place, in order to shield the perpetrator from blame and repercussion (Sykes and Matza 1957). Techniques of neutralisation are built upon the concept of denial and can be identified in instances of state-corporate crime. Recently, the concept of denial has been given some

attention in the U.S., with discussions surrounding ‘alternative facts’ and ‘post-truth politics’ involving the Trump administration (Brevini and Woronov 2017). However, statements of denial can take a number of forms (for example, accidentally lying in good faith versus deliberately deceiving someone) and have always existed among numerous types of communication: conversations between friends or work colleagues; reporting of an event by the news media; corporate press releases or policies; government justifications for legislation. Language is at the centre of denial, as statements of denial are an approach to presenting – or framing – an issue, event, or action (Maruna and Copes 2005) as well as a construction of meaning. How issues, events, and actions are framed depends on who is making the claim; what goal he or she seeks to achieve, or the motives behind the claim; the intended audience of the statement; as well as what they believe to be true. Denial can be achieved using a certain set of scripts – techniques of neutralisation (Cohen 1993; 2001). Whenever facts indicate that an issue, event, or action is harmful, those who stand to gain personal benefit can deny the harm through techniques of neutralisation. Techniques of neutralisation used by Adani and the Australian state to frame the Carmichael Project are studied in order to understand how environmental harms have been denied in Chapters Five and Six of this thesis; beginning on page 90.

‘State-corporate crime’ describes a criminal act that occurs as a result of the relationship between two powerful actors, the state and corporation (Kramer and Michalowski 2006). While a corporation’s actions may be motivated solely by the maximization of profit, corporations require a legal framework in order to operate in and interact with the market of a state (Tombs and Whyte 2015; Whyte 2018). The state, as the legislator and enforcer of its legislation, thus has the ability (and responsibility) to control how a corporation may conduct itself within the state’s borders. Situations in which a state allows a corporation to function without oversight; when oversight is inadequate or easily manipulated on the corporation’s behalf; or when a corporation’s criminal activity is deemed lawful or not prosecuted by the state, can be argued to be evidence of the state and corporation’s collusion to commit a crime (Matthews and Kauzlarich 2000). Environmental crimes can potentially represent one type of state-corporate crime when the state is reluctant to regulate corporations that rely on the exploitation of the environment, such as the coal mining industry, and this lack of regulation leads to the damage of the environment (Kramer and Michalowski 2013; Tsing 2005; Zaitch and Gutiérrez Gómez 2015). Capitalist states, seeking to maximize profit, are susceptible to such collusion with corporations, which often invest large amounts of money for their business endeavours (Green and Ward 2004). In asking whether or not the Carmichael Project can be understood as a state-corporate crime, the relationship between the Australian Government, Queensland Government, and the Adani corporation is examined. The governments’ approval of the Carmichael Project, at the expense of the environmental harms that it will produce, is studied as potential collusion with Adani in Chapters Seven and Eight of this thesis; beginning on page 139.

‘Ecocide’ is defined as the extensive damage to, destruction of or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been or will be severely diminished’ (Higgins 2010). The term was first used in the 1970s to describe the effects of Agent Orange during the Vietnam War (Zierler 2011). Academics and legal scholars have since argued for the need to criminalise ecocide on an international level as the destruction of one ecosystem is never self contained and can have permanent effects on the Earth as a whole (Gauger et al. 2012). As an academic concept, ecocide acknowledges that environmental harms are often not illegal, as it is usually committed by the powerful who have a say in what actions are legal and illegal

(Higgins et al. 2013). For this reason, ecocide can be understood as a type of state-corporate crime. Yet one major point of debate involving ecocide as a legal concept has to do with the offender's intent to commit the crime (Higgins 2018; MacCarrick 2016). In the case of the Carmichael Project, for example, are the consequences of extensive destruction of the environment severe enough to warrant a charge of ecocide regardless of the offender's intent? Following a discussion of denial and state-corporate collusion, the Carmichael Project is investigated as a potential future ecocide by Adani and the Australian state in Chapter Nine of this thesis; beginning on page 172. The effects that the Project would have on the Great Barrier Reef through greenhouse gas emissions; to the land and water resources of the Galilee Basin; and to future generations who depend on present generations restricting their carbon emissions are considered in the analysis.

Techniques of neutralisation and denial; state-corporate crime and collusion; and ecocide and harm are the framing concepts of this thesis. These concepts provide a lens through which I interpret the data available on the Carmichael Project, and are part of a larger perspective that informs this thesis: green criminology.

Green Criminology

While criminology can be broadly defined as the study of crime, *green* criminology specifically focuses on environmental crime. Environmental crime can be conceptualised in different ways within green criminology, however. Some scholars define environmental crime based on legal boundaries – ‘it is what the law says it is’ – while others view environmental harm to be a social and ecological crime – ‘if harm is done to animals to environments or animals, then from the point of view of the critical green criminologist this ought to be considered a crime’ (White 2014a: 3). For this thesis, the latter, critical green criminology perspective will be used, which sees green criminology as the study of ecological, environmental or green harm or crime; and matters of environmental justice and injustice (South et al. 2013; South and Brisman 2013). I chose to study the Carmichael Project through this green criminological perspective because while mining is not illegal *per se*, the Carmichael Project would – according to the scientific consensus – affect people, animals and plants and the planet through its contribution to climate change and other environmental harms. Chapter Four further conceptualises environmental harm and provides a detailed account of the specific harms of the Carmichael Project.

Green criminology is multidisciplinary, involving, for example, political science, environmental science, psychology, and economics. Ruggiero and South (2013) describe green criminology as ‘a coming together of related work – the expression of the zeitgeist anxious about global warming and environmental degradation.’ This thesis weaves these multiple disciplines and areas of study together under the umbrella of green criminology in examining the Carmichael Project. As an example, I investigate the economic, social, and political climate in which the debate over the Carmichael Project's approval occurs. The discussions of the Project's environmental harm that arise out of the Australian economic, social, and political situation involve a number of intersecting variables, as White and Heckenberg (2014) point out:

- Who the victim is (human or non-human);
- Where the harm is manifest (global through to local levels);
- The main site in which the harm is apparent (built or natural environment);
- Scale of harm (contained, dispersed, cumulative); and

- Time frame within which harm can be analysed (immediate and delayed consequences).

Depending on *who* is discussing the Project and *when* or *why* the discussion takes place, a different – and often opposing – narrative of the Project and its harms or benefits is presented. A central focus of the study is to untangle these narratives through analysing what is being argued, by whom, and how the timing of the argument influences what is being said.

As a critical perspective, one central topic for green criminology includes corporate criminality and the social and political dynamics that determine what is officially labelled as a crime.

The notion of ‘eco-crime’, according to Walters (2010: 180) is useful for both ‘existing legal definitions of environmental crime, as well as sociological analyses of those environmental harms not necessarily specified by law’:

When eco-crime is contextualised within notions of harm we can observe a broadening of the gaze beyond legal terrains to include discourses on risk, rights and regulation. As a result, eco-crime extends existing definitions of environmental crime to include licensed or lawful acts of ecological degradation committed by states and corporations.

The Australian state, which the thesis will argue has vested interests in the Carmichael Project’s approval and operation, does not consider the Project (and, by extension, its approval of the Project) criminal or harmful. Likewise, Adani, standing to gain financially from the Carmichael Project, casts the operation as beneficial and necessary. The labelling of an activity as criminal largely depends on the people with the power to create the label. Green criminology allows for a critique of illegal environmental harms (those activities that are defined as illegal and consequently subject to punishment) as well as legal environmental harms (those activities that are currently legal but are also ecologically and socially harmful).

Green criminology is concerned with harms that directly damage the ecosystem or its parts (direct victimisation of the environment); victimise species through ecosystem damage (indirect victimisation); the types extent, and consequences of environmental harms that may or may not be defined as crimes under current forms of law; processes for controlling green crimes; and perspectives, hypotheses, and theories that promote analysis of environmental harms and law, crime, and justice concerns’ (South 1998; Beirne and South 2007; Lynch and Stretesky 2003; Lynch et al 2008; White 2008). It is field of study that theorises and critiques transgressions that are harmful to humans, environments and non human animals regardless of legality as well as environmental-related harms facilitated by the powerful (White 2014a).

Green criminology is oriented towards exposing activities that cause significant harm to the environment, incorporating concepts such as ecocide and crimes of the powerful to argue for the formal criminalisation of behaviour that is destructive of ecology and species – making it a useful perspective for studying what would be one of the largest coal mines in the world.

Outline of Thesis Chapters

This thesis is organised into ten chapters. This is the first chapter, which describes my rationale behind choosing this particular case study and provides the objectives of the study, lens for analysis, and layout of the thesis. Chapter Two describes how the study was conducted. It

explains how I chose my data; how the data was collected and organised; and the way I analysed the data to reach my conclusions.

Chapter Three is a background chapter on the Adani Group and the Carmichael Project. It presents a timeline of key events that explain the historical, political, and social context during which the controversy surrounding the Carmichael Project arose. Chapter Three includes a summary of the legal cases surrounding the approval of the Project, which are referred to throughout the thesis, and introduces the stakeholders from the Adani Group, the Queensland Government, and the Australian Federal Government, who play significant roles in issues discussed in the thesis.

Chapter Four describes the environmental harms that would result from the Carmichael Project. Specifically, harms to land; water; air in the form of climate change; and to the Great Barrier Reef are discussed, according to scientific evidence presented at various stages of the Project's timeline.

Chapter Five discusses techniques of neutralisation and Cohen's concept of denial, which expands on Sykes and Matza's concept of techniques of neutralisation to include crimes of the powerful. A description of the various strategies employed by corporations to stifle environmental discourse and environmental activism follows. The discourses that have been historically used by corporation and state alike to deny or neutralise harms can be recognised among stakeholder justifications for the proposal, approval, and operation of the Carmichael Project.

Chapter Six examines the Carmichael Project in light of these techniques and scripts of harm denial and neutralisation. This chapter explains the ways in which the Carmichael Project's harms were denied and its approvals were justified. It is shown that the Carmichael Project's stakeholders were making – on record, to courts and various media outlets – the same arguments that have always been made on behalf of coal and – as the New York Attorney General's investigation into Peabody, for example, showed – these arguments or scripts are untrue and deceitful.

Chapter Seven provides a discussion of crimes of the powerful: state crimes, corporate crimes, and state-corporate crimes. The research by Tombs and Whyte into the nuances in the types of crimes of the powerful proves to be essential in analysing the Carmichael Project as criminal. There are three components to analysing the Carmichael Project as a state-corporate crime: it must be a state crime, which involves the need to identify the Australian state as a potentially-criminal entity in general and with regard to the Carmichael Project specifically; it must be a corporate crime, which involves the need to identify criminal or harmful actions committed by Adani and/or individuals acting on behalf of Adani; and there must be collusion between the two entities, which usually involves an exchange of mutual benefit.

Chapter Eight investigates the Carmichael Project as a crime of the powerful, involving state-corporate collusion. In light of the environmental destruction that would result from the Project's operation, this chapter describes *how* this mining project was able to continuously receive government approval. This involves an analysis of Australian and Queensland mining legislation and the legislation that could potentially fund the operation using taxpayer dollars. Conflicts of interest between government officials who write and enforce this legislation and the mining industry are revealed.

Following the discussion of state and corporate crime and state and corporate denial of harm, Chapter Nine discusses the history, concept and proposed law of ecocide as it would apply to the Carmichael Project. At its core, ecocide implies that humans have obligations to animals, trees, oceans and other members of the biotic community. This suggests that States have a responsibility to exercise extreme caution before embarking on any project likely to have the possibility of adverse effects upon the ecosystems concerned. The failure by States to prevent (or take responsibility for) dangerous industrial activities thus becomes the failure of the State to ensure the welfare of the people and the planet. Previous chapters have shown the Carmichael Project will contribute to climate change, which has been argued to be a leading contributor to the Great Barrier Reef's destruction, and other serious environmental harms. Previous chapters have also shown that instead of preventing or reducing carbon emissions and environmental degradation, the Australian Government approved and/or funded a major carbon producing project. The combined potential harms and cover-up or denial of those harms suggest the Government's actions may constitute the crime of ecocide.

Chapter Ten provides the concluding remarks of the thesis. After an examination of the Carmichael Project as a state-corporate crime and crime of ecocide, this final chapter suggests a number of changes in the Australian governance system that could potentially prevent future large-scale mining projects from receiving the government support that the Carmichael Project enjoyed. At the centre of this chapter is a discussion of democracy, which, when protected through legislation and the closing off of a number of loopholes, can be critical in the prevention of future environmental harms.

Conclusion

The processes through which a demonstrably harmful mining operation is able to receive approval from multiple government agencies provides insight into the ways in which the state's legislation fosters an intimate and dangerous relationship between governments and multinational corporations. This thesis studies that relationship between state and corporation, in the particular case of the Carmichael Project. The story of the Carmichael Project is, in some ways, not unique – the Australian Government has supported similar operations in the past. However, at a time when the effects of human-caused climate change are irrefutably responsible for the destruction of ecosystems and disproportionately effect the most vulnerable populations; and at a time when the majority of citizens denounce the use of public resources for new mines, the approval of the Carmichael Project can be studied as not only harmful but also criminal.

This thesis approaches the Carmichael Project using a harm perspective and notions of ecological justice. It is organised according to the tripartite test of the Project's potential future ecocide. First, the proposed harms are investigated in order to understand the scope and scale of the environmental degradation that is at stake with the Project's approval. The approval of the Project despite these harms is then studied. This investigation will determine whether there is evidence of collusion between government and corporation, i.e. whether a state-corporate crime occurred. The Australian state and Adani corporation's denial of harm is then investigated to determine the stakeholders' motivation and intent. If the Carmichael Project – through its harms and denial of these harms by politicians (who are elected to act in the best interest of their country) and corporate officials (who have justified, sometimes under oath, their trustworthiness in carrying out the mining project), can be understood as a state-corporate crime, the specific crime of ecocide is then tested.

As the globalised world enters an era of post-truth politics, the presentation of ideologies and opinions as facts has refreshed the need to understand the techniques of neutralisation and denial of harm that are used in justifying factually-harmful practices. The Carmichael Project is a significant case study in criminology. The Project is proposed at a time in which both the international community and Australian state claim to understand the urgency in addressing rising carbon emissions from fossil fuels. The majority of the Australian public do not support the building of the mine. The Project threatens natural resources, the survival of several species, and the entirety of the Great Barrier Reef. The land that the Project seeks to mine is Indigenous land. These are the facts. Nevertheless, the Project has been approved and re-approved by the Australian Government. This thesis investigates the connections between these facts; the *why this is so*. This single mining project's approval involves questions of environmental governance, climate change, and democracy. As it will be shown, democracy and the managing of the commons is inextricable and, as a Labor figure stated, '*[The Carmichael Project] is talismanic. It's the litmus test. Adani has become shorthand for 'are you serious about climate change?'*' (Murphy, 2017).

Chapter Two

METHODOLOGICAL CONSIDERATIONS – CONTOURS, JOURNEYS AND DECISIONS

“Environmental damage has direct effects on the enjoyment of a series of human rights, such as the right to life, to health, to a satisfactory standard of living, to sufficient food, to housing, to education, to work, to culture, to non-discrimination, to dignity and the harmonious development of one’s personality, to security of person and family, to development, to peace, etc.” (UN Commission on Human Rights 1994)

“Management of the health effects of climate change will require inputs from all sectors of government and civil society, collaboration between many academic disciplines, and new ways of international cooperation that have hitherto eluded us...Climate change also raises the issue of intergenerational justice. The inequity of climate change – with the rich causing most of the problem and the poor initially suffering most of the consequences – will prove to be a source of historical shame to our generation if nothing is done to address it” (Costello et al., 2009)

“With more focus on environmental crime will come a new definition of victims to include species other than humans and a definition of offenders to include those who pollute for convenience ... [and] for profit. Just as Sutherland’s white-collar crime expanded our crime paradigm (1949) ... environmental crime will change it in the future” (Zahn 1999)

Introduction

This chapter describes how this study was conducted. It explains why I chose the data I used; how the data was collected and organised; and the way I analysed the data to reach my conclusions. As an exercise in green criminology, this thesis analyses the Carmichael Project as a case study of environmental harm, state and corporate collusion, and ecocide. This chapter explains the rationale behind using the case study method and an inductive analysis approach to gathering data. The challenges of conducting a study on a case that can be considered ‘unresolved’ or happening in ‘real time’ during the analysis are also addressed in this chapter. The field visits and informed discussions that I had with stakeholders throughout my studies are also described in this chapter. This chapter concludes by describing the method of analysing the data, which includes considering my perspective as a researcher and the study’s trustworthiness.

The Case Study

There are numerous qualitative research methods available for a thesis in criminology. For my thesis, I chose to do a case study due to some particular characteristics of my study that were well suited for the case study method. According to Yin (2003: 23), the case study research method is ‘an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used’. Based on the literature on qualitative theory and case study methods, it became clear to me that the case study method would suit the goals I had for my research.

Yin (2003) and Baxter and Jack (2008) have recommended a researcher use a case study when the focus of the study is to answer ‘how’ and ‘why’ questions. In answering my research question – Does the collusion between the Australian Federal and Queensland State Governments and the Adani Corporation constitute an act of ecocide? (insofar as the potential consequence and outcome of the Carmichael Coal Mine and Rail Project is gross environmental harm and destruction of the Great Barrier Reef) – several ‘how’ and ‘why’ questions must be asked and answered. For example, *how* the Governments’ approvals were able to have been granted, as subsequent chapters reveal, unravels the collusion or the *why* behind the approvals.

Case studies should also be considered when the researcher cannot manipulate the behaviour of those involved in the study; and when the researcher seeks to investigate the contextual conditions because he or she believes they are relevant to the phenomenon under study, i.e. the boundaries are not clear between the phenomenon and the context (Yin 2003; Grunbaum 2007; Baxter and Jack 2008). The Carmichael Project involves the powerful (the Adani corporation and members of the Australian Federal and Queensland Governments), so it would not be possible for me to manipulate the behaviour of those stakeholders involved in my study. While environmental activists have manipulated the behaviour of some powerful players (e.g. the Queensland Government and banks on the subject of funding – as the next chapter will show), activists are a part of the puzzle and contribute to the dynamics that are studied. It also goes without saying that the Carmichael Project cannot be considered without the context in which it takes place. It is within the setting of the Australian political atmosphere; the global attitude towards climate change; and shifting views on coal mining and renewable energy that the Carmichael Project was justified; its benefits rationalised, and its harms denied.

Case studies contain a degree of flexibility (Heckenberg 2011), a characteristic that was particularly useful during the data collection of an ongoing phenomenon that itself was constantly developing and changing, as I describe below. All case studies focus on a single phenomenon, however in order to achieve a more in-depth picture of the dynamics of state-corporate crime exposed in a way that theoretical analysis would not provide, I chose to do an explanatory case study.

Explanatory case studies, according to Harder (2010: 370), ‘not only explore and describe phenomena but can also be used to explain causal relationships and to develop theory’ and should follow some type of pre-determined model that portrays the patterns to be investigated in order to guide researchers on which topics need to be explored. While the thought of fitting my case study into one over-arching theory was appealing, I was actually faced with a number of interrelated theories. As Mjoset (2006: 757, 738) observed,

Rather than believing that we ‘observe’ in the light of some vaguely stated (high level) theory, we must realise that as empirical researchers, we observe with reference to several theories embedded in a smaller set of local research frontiers...there is no way of analysing a single case without drawing on a number of theories.

The Carmichael Project will be studied, organised and presented through the theory-lens depicted by Figure 1.1. A key objective of this case study method is the ‘deep understanding of the actors, interactions, sentiments, and behaviours occurring for a specific process through time’ (Woodside 2010: 6). ‘Deep understanding’ involves the knowledge of the sense-making processes created by individuals (i.e. how relevant players perceive and interact with their reality). Understanding the Carmichael Project stakeholders’ sense-making processes was crucial for my analysis, since I wanted to learn whether or not the stakeholders’ approval of the Project could constitute potential criminal behaviour; the crime of ecocide. I found that the analysis benefitted from the long lifetime of the Carmichael Project. The legal proceedings and environmental protests against the Project have spanned over seven years, during which several stakeholders have played long-term roles. Studying the developments of the Carmichael Project as time progressed provided insight into how relevant players interact with their reality as their realities changed. For example, in the months leading up to the 2017 Queensland election, the ways in which politicians spoke about the Project to the public shifted. Previously unashamed of supporting the mine, mounting pressure from environmental activists and citizens around the election prompted the politicians to take on a cautious perspective (see Chapter Three). These shifting scripts provided insight into the state’s strategies regarding which opinions on the Project should be presented to the public and when. Conducting an explanatory case study allowed me, as the investigator, to remain open to such new discoveries throughout the process.

A common criticism of the case study method is that the results cannot be generalised; a particular case is unique and thus its results are also idiosyncratic. Flyvbjerg (2006) addresses this common misunderstanding regarding case study research and generalizability by drawing attention to the undervalued contribution of an in-depth ‘example’ and the overvaluing of formal generalisation to scientific development. A case study, according to Flyvbjerg, should be read as a narrative. Case studies feed into the process of ‘naturalistic generalisation,’ which refers to the context-specific information that the reader of the case study gains (Stake and Trumbull, 1982). Through naturalistic generalisation, the reader of a case study reflects on how the details of a particular case can be generalised to their own experience or research, gaining

self-generated knowledge in the process (Melrose 2009). When read by others, the analysis of the process of how subjects make meaning becomes a part of the reader's process of making meaning out of analogous situations they may encounter.

The findings of this case study will contribute to the 'research frontier' (Mjoset 2009) of environmental harms and crimes of the powerful. This particular case study also contributes to the field of criminology – and more specifically, green criminology – but also complements as it draws on other areas of study such as law, sociology, psychology, and environmental science. This thesis involves an analysis of the key players and stakeholders in the Carmichael Project, including politicians of the state government of Queensland and federal government of Australia and members of the Adani corporation. The 'site' includes the physical sites of: the Carmichael Mine area in Queensland's Galilee Basin, the boundaries of the Galilee Basin and its geological and hydrological structures, the Carmichael Rail through Queensland to Abbot Point Port, Abbot Point Port itself, the Great Barrier Reef, and the surrounding Great Barrier Reef Marine Park area; and the larger global environment, including the land, air, and water of Earth, which are all interconnected and affected by the Project.

Data and Data Collection

In writing this thesis, I was concerned with selecting the most appropriate way to furnish a theoretically informed account of the harms associated with and perpetuated by the Carmichael Project and its stakeholders. Deciding what kind of data to collect was my first challenge. This project is unique in that it is about a watershed, historical and pivotal environment moment in Australian history involving the greatest predicted environmental catastrophe of our time – and I was studying it as it was unfolding.

Considering sources of information

Initially, in the planning stages of this research, I considered using semi-structured interviews with people who represent all sides of the Carmichael debate as the source of data for my thesis. I thought it would be ideal for a well-rounded analysis if I could interview local and federal politicians, Adani officials, and environmental activists. However, even early on I had suspected that due to the case's fame and controversy it would be difficult to find consenting informants (as, for example, trying to interview stakeholders *during* the politically controversial UK miners' strike would be). Before applying for ethics approvals and furthering the idea of conducting semi-structured interviews, I decided to visit the Adani headquarters at 10 Eagle Street during my first field visit to Brisbane to get an initial impression of how a researcher would be regarded. I thought it would be a good sign for acquiring interviewees if Adani officials – those with the most on the line in terms of reputation – are enthusiastic to speak with me (perhaps wanting to 'set the record straight'). This visit was my way of testing the viability of gathering primary data for my thesis and this is what happened:

At approximately 10:00 a.m., I rode the elevator to the 25th floor and was met with an empty hallway. At one end, through a pane of floor-to-ceiling glass doors, I saw an empty reception desk. The multi-coloured Adani logo hung on the wall behind the desk, so I knew I was in the right place. There was a sign beside the door that read, "if no one is at the reception desk please call one of these numbers" and listed approximately 20 names with their corresponding telephone numbers.

Just as I took my phone out of my pocket to take a photo of the list (so that I could quickly Google the names to see which one I should call to make an appointment to talk at a later time), an Indian man came out of what I assume were restrooms on the opposite end of the hall. Without an introduction or a smile, he asked, “why are you here?” I told him I was looking to talk to a receptionist at Adani Australia, to which he responds “you can talk to me.” I proceed to tell him my story: that I’m an American student in Tasmania studying the Carmichael mine, was at the recent court hearing and would like to talk to someone from Adani for my research.

Visibly annoyed, he tells me that since these are ‘sensitive matters’, I should make an appointment and come back with some ‘authority from the university’ outlining what exactly I’m after and where this meeting would be published. The man also asked why I want to know about the Carmichael mine in particular. I attempted to make a light-hearted remark about the Carmichael’s controversy being a prime subject for a researcher. Unmoved, he then gives me the Adani reception desk’s email address – the one based in India, which I had already known about from Adani websites’ contact form – and tells me to contact them to request a meeting. I asked for his name so that I could reference this encounter in my email, to which he sternly responded: “I am not telling you my name.” I thanked him and left the building. Later that day and throughout that week, I emailed and called the Adani reception desk several times but did not receive a response.

It was at this point that I knew I could not proceed with my idea of conducting interviews as I would be met with closed doors and dead ends. I also realised that due to the case happening in real time, even if I did manage to land an interview with a stakeholder, I would most likely receive scripted responses earmarked for researchers and journalists – the same responses I could read in secondary sources. There was just no way that politicians (especially those in the ‘pro-Adani’ camp who I would need to talk to) or Adani representatives would tell a researcher anything they wouldn’t tell the media or state under oath in court. From their point of view, talking to me would be a risk; especially ‘now’ while the debate surrounding the Project was ongoing. Environmental activists would possibly be more willing to talk to me (although probably also hesitant to discuss more sensitive and unpublished matters, such as campaign strategy) but this would result in biased, one-sided data. Perhaps my luck would be different if I were studying the Carmichael Project as a historical event, 10 years from now.

While the presently-unfolding status of the Carmichael Project had prevented me from conducting stakeholder interviews, its relevance in present-day Australian society was actually an advantage to me as a researcher. Adani, the Carmichael Project, and the politicians and activists involved were constantly in the media; in courts; and in political and civil discussions. The controversy was very much alive, and this fact meant there existed a wealth of secondary data – that had all the answers I’d seek in an interview – to be used for my thesis.

I thus decided to utilise secondary sources, in the form of legislation, court documents, media releases and websites, and journal articles as the data for my research. Together, and given the current high-profile status of the Project, these sources would provide as much insight into the sense-making processes of each stakeholder that was so important for my analysis.

The Carmichael Project archive

Determining the type of data to use for my project was the first methodological challenge. In choosing to utilise secondary data, I still had a number of important decisions to make. The Carmichael Project’s present-day status meant each day was guaranteed to produce a number

of new potential secondary sources in various formats, from media reports to court documents and everything in between. The parameters, i.e. the period of time that my data would both cover and arise out of, therefore had to be strategically chosen. After careful consideration, I narrowed my data collection to the time between 4 August 2010 and 25 November 2017. The ‘start date’ of 4 August 2010 marks the selling of the Galilee Basin coal reserves from Linc Energy to the Adani Group Ltd Pty (Murphy 2010). Prior to this date, only one news article existed that mentioned the coal in the Galilee Basin and the region’s long-term mining development plans (Jacques 2009).

The acquisition of Linc Energy’s coal reserves in the Galilee Basin allowed Adani to begin its application process to turn the coal reserves into the Carmichael Project, making this date a logical beginning point of data collection. The ‘end date’ of 25 November 2017 marks the outcome of the Queensland state election. As the Carmichael Project is as much a political endeavour as it is a corporate resource extraction endeavour, Queensland politics played a central role throughout the Project’s lifetime. The Carmichael Project was a key issue in Queensland’s 2017 election, with activist groups targeting Queensland’s major parties for supporting the coal mine (The Sydney Morning Herald 2017), essentially forcing the Honourable Annastacia Palaszczuk (ALP) to vow to ‘have no role in the future’ with the assessment of the \$1 billion loan to Adani for the Carmichael Project if she were re-elected (ABC 2017). Palaszczuk was successful in winning another term as the Premier of Queensland but the Greens were able to get 10% of the vote, winning them one seat (Brisbane Times 2017). In my view, this election not only highlighted the power of environmental activism but it also spoke to the immensely charged atmosphere in Australia during the Adani era.

Still, a period of approximately seven years and three months (or approximately 2,650 days) is a very long time for data collection, considering new materials were being published daily. Before I could further narrow down my data sources, I had to see what was out there. To do so, I took on an inductive approach, as defined by Thomas (2006: 238):

Inductive analysis refers to approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher.

The inductive approach allowed me to cast a wide net for data pertaining to the Carmichael Project in order to see which themes would emerge, without the restraints imposed by structured methodologies. I collected the data in a few ways:

I subscribed to daily Google Alerts for the terms ‘Adani’, ‘Carmichael Coal Mine’, and ‘Great Barrier Reef’ in order to stay up-to-date on Carmichael Project news and to have the news articles in chronological order, ready-at-hand. Using Google Alerts also prevented me from having to check each individual news source separately – a task that would have been immensely time-consuming – and made it possible to search for a specific article, i.e. regarding a particular Carmichael court case, retrospectively, through my email’s search function. Every day, from 1 November 2015 (the first day of my subscription) to 25 November 2017 (the Queensland election), I received three emails, one for each term, with links to any news article that mentioned them. Each term’s daily email contained approximately four articles. I then went through each of the Google alerts to see which were relevant to my research questions. I eliminated any repeats in media articles (for example, some news articles contained both ‘Adani’ and ‘Carmichael Coal Mine’ and therefore appeared in my inbox twice that day) and any media articles that were irrelevant to this case study (for example, some Google Alerts for

‘Adani’ reported on the company’s stock and share prices). I then had to manually search for relevant news articles between 3 August 2010 (Linc Energy sale to Adani) and 1 November 2015 (when I began Google Alerts). This equated to approximately 3,016 news articles per term, or about 9,000 articles in total.

Due to the nature of my research involving the potentially-criminal activities of those who hold the most power within a society, i.e. politicians, government officials, and individuals acting on behalf of a multinational corporation, I was aware that news reporting of the Carmichael Project would only provide me with a basic understanding of the corruption that I had sought to investigate. As such, a portion of the data collected for this case study was a result of my being what I refer to as an ‘Internet sleuth’, engaging in ‘investigative social research’. Douglas (1976) described investigative social research as a necessary tool for a researcher to navigate propaganda and lies that surround the truth of a reported event; necessary when studying ‘the powerful’. Similar to my personal investigation of Peabody upon reading the article about the company’s bankruptcy, some of the data of this case study were discovered as a result of my personal curiosity of the subject matter. The aforementioned ‘power players’ have interests in maintaining a certain level of secrecy, which forces a researcher to take on a role akin to that of a private investigator whose main tool is the Internet rather than a traditional researcher whose data ‘ends’ with an interview, for example.

As an Internet sleuth, I had to read between the lines and, as the adage goes, “follow the money.” One example of this investigative approach is in the chapter on techniques of neutralisation. In order to discuss the particular public relations campaigns regarding the Carmichael Project, it was necessary for me to find out which firm was working on Adani’s behalf. Yet this information was never mentioned in a single news report and was absent from Adani’s websites. After clicking from website to website and scrolling through countless comments made by the public on various media reports pertaining to the Carmichael Project, I found the Facebook of Adani’s hired public relations team. This allowed me to later research the staff, which exemplified the tight-knit relationship between industry and government – an argument central to my exploration of crimes of the powerful. The public relations team serves as an anecdote of the kind of investigative approach that I had to undertake in order to collect some of my data. Gaining access to secondary data was, at certain points, not much easier than it would have been to get stakeholder’s permission to be interviewed; the materials were sometimes just as elusive.

It should be acknowledged that online news obtained via the Internet differs from newspapers, radio or television. The Internet can be considered a hybrid medium; a fusion of traditional print media, radio and television (Deuze 2003) and offers the possibility for live reporting with its ‘breaking news ideology’ (Volkmer 2006), useful for studying the developments of a mining project as they occur. In addition to the rapid dissemination of information, the ability of online news sources to link textual and visual materials to each other has ‘increased the internal and external intertextuality of news journalism, partly as a consequence of the new possibilities for re-producing news that the escalating digitisation of the media industry has brought’ according to Kautsky and Widholm (2008:85). While these characteristics provide challenges such as the data mountain previously described, they have also proven beneficial for my thesis. I wanted to know what was happening with the Carmichael Project as it was happening and I wanted to know how arguments for and against the Project were being framed. The instant nature of online reporting and the Internet’s intertextuality did exactly that. Through Google Alerts I know what was happening on a daily basis. Through finding the repeated phrases and quotations shared among differing news sources in their online articles, I was able to pinpoint

the ‘base script’ of the Project’s developments, according to different stakeholders. One example, further elaborated in Chapter Six, is the consistent describing of the mine as ‘a moral necessity’ by one government official. This phrase appeared throughout various online news sources at multiple points of the Project’s development, signalling the phrase’s importance. In other words, it was a message the stakeholder wanted the public to hear and through its repetition, as my analysis would later find, was a technique of denying the Carmichael Project’s harm in order to justify the government’s approval.

In addition to news reports and articles, I also collected the submissions, witness statements, evidence, and decisions produced by each of the following cases involving the Carmichael Project:

Table 2.1 Data Source: Court Cases

Jurisdiction: Commonwealth of Australia
Mackay Conservation Group v Commonwealth of Australia and Adani Mining
Australian Conservation Foundation Incorporated v Minister for the Environment
Australian Conservation Foundation Incorporated v Minister for the Environment and Energy
Mackay Conservation Group Inc v Minister for the Environment
Alliance to Save Hinchbrook Inc v Minister for the Environment
Delia Kempf & Ors v Adani Mining Pty Ltd
Adrian Burragubba v State of Queensland & Ors
Adrian Burragubba & ors on Behalf of the Wangan and Jagalingou Peoples v State of Queensland & Ors
Jurisdiction: Queensland
Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors
Land Services of Coast and Country Inc v Chief Executive, Department of Environment and Heritage Protection and Adani Mining Pty Ltd
North Queensland Conservation Council v Minister for the Environment & Ors
Whitsunday Residents Against Dumping Ltd v Chief Executive, Department of Environment and Heritage Protection & Adani Australia Coal Terminal Pty Ltd
Adrian Burragubba & Ors v Minister for Natural Resources and Mines & Ors

These sources proved to be essential for my analysis and are referred to throughout my investigation of the research questions. For example, the expert report of Dr. Malte Meinshausen to the Land Court of Queensland during the case *Adani v Land Services of Coast and Country Inc & Ors (2015) QLC 48* contains information regarding the Carmichael Project’s climate change emissions and is therefore appropriate for Chapter Nine’s discussion on ecocide and the climate change impacts of the Project.

In order to understand the legal grounds of each case, I also had to study the appropriate legislation and agreements that were referred to in the parties’ submissions. This meant that I had to locate and familiarise myself with a number of laws in Queensland and the Commonwealth of Australia, as well as international treaties of which Australia and/or India have signed. The specific legal texts used to inform the discussions of harm and justice in this thesis are outlined in Table 2.2 below.

Table 2.2 Data Source: Legislation

Topic	Source
Jurisdiction: State of Queensland	
Resource extraction project	Prospecting Permit; Exploration Permit; Mineral Development Licence (MDL); Mining Lease; Water Monitoring Authority; State Agreement; <i>Mineral Resources Act 1989 (Qld)</i> (MRA);
Native Title	Indigenous Land Use Agreement (ILUA); Right to Negotiate (RTN)
Development	State Development and Public Works Organisation Act 1971 (Qld),
Environment	<i>Environmental Protection Act 1994 (Qld)</i> (EPA);
Jurisdiction: Northern Australia	
Development	<i>Our North, Our Future</i> : White Paper on Developing Northern Australia
Funding	Northern Australia Infrastructure Facility
Jurisdiction: Commonwealth of Australia	
Environment	<i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth)</i> (EPBC Act)
Great Barrier Reef	<i>Reef 2050 Plan</i>
Jurisdiction: International	
Environmental treaties	<i>Paris Climate Agreement 2015</i> ;
World Heritage	<i>UNESCO World Heritage Convention</i>

Thousands of hours went into collecting all of this information on the Carmichael Project. At the end of the data collection phase, I had at my fingertips approximately 9,000 news articles; 3,000 pages of legislation and legal texts; 18,000 pages of submissions to courts and court decisions; and 12,000 pages of miscellaneous data, such as websites, NGO reports, and academic articles. Table 2.3 summarises the data I have collected for my analysis:

Table 2.3 Summary of data collected for this study

Source of data	Type of data	Example
Court cases involving the Carmichael Project	Submissions by applicants and respondents under oath; Outline of arguments; Affidavits of witnesses; Expert evidence; and Court decisions and recommendations.	Australian Conservation Foundation Incorporated v Minister for Environment
Queensland legislation	On coal mining: legislation regarding applications; leases;	<i>Mineral Resources Act 1989 (Qld)</i>

	<p>and funding of coal mining projects;</p> <p>On the environment: legislation regarding protection of endangered species; the Great Barrier Reef;</p> <p>On development: legislation regarding use of natural resources; sustainable infrastructure development; funding of corporate projects and criteria for loans and taxes of corporate projects</p>	
Commonwealth of Australia legislation	<p>On coal mining: legislation regarding applications; leases; and funding of coal mining projects;</p> <p>On the environment: legislation regarding protection of endangered species; the Great Barrier Reef; climate change; and World Heritage site management.</p> <p>On development: legislation regarding use of natural resources; sustainable infrastructure development; funding of corporate projects and criteria for loans and taxes of corporate projects</p>	<i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth)</i>
International agreements and treaties	International commitments of which Australia is a signatory and involves the environment; climate change; World Heritage site management; and/or future generations	Paris Climate Agreement 2015
Media coverage of the Carmichael Project	State and federal newspaper articles; Indian newspaper articles; press releases made by environmental activists, NGOs, Adani, or the Queensland or Australian Governments	Milman, O. (2015) 'Adani overestimated Carmichael coalmine benefits, says Indigenous group.' <i>The Guardian</i> , 27 May.
Websites and NGO reports	Adani websites that relate to their coal extraction projects, the Carmichael Mine, and their business in Australia;	www.adanimining.com

	<p>Environmental activist organisation and NGO websites that relate to the Carmichael Project, climate change, or ecocide;</p> <p>Queensland or Commonwealth of Australia Government websites that relate to the environment, resource extraction, developments, or the economy</p>	
Academic journal articles	Articles in criminology or related fields that pertain to relevant topics such as ecocide and greenwashing	Hughes, T. et al. (2017) 'Global warming and recurrent mass bleaching of corals.' <i>Nature</i> 543: 373-377

The result of the thousands of hours spent collecting information on the Carmichael Project is an original and unique archive of the Carmichael Project on my computer. This database forms an authoritative library on Adani's history; the Carmichael Project's application and various approvals from the Queensland state and Australian federal governments; the Project in Australian courts; the issues surrounding financing the Project; and the harms that would result. My analysis and thesis chapters have been informed by this archive that I have built.

In addition to this library of data that I've collected on the Carmichael Project, I have also chosen to attend strategic events to inform possible theoretical routes and modes of data analyses. These events have led to my speaking with people with reputable knowledge on the Carmichael Project.

Field visits and informed discussions

While most of my data was obtained through the Internet, I also took field visits from Hobart to Brisbane throughout the duration of my thesis with the purpose of attending strategic events of the Carmichael Project's timeline and speaking with stakeholders who have unique perspective on the Project's developments. Yin (1984) maintains that the observations and discussions of a researcher doing a case study is often a more direct method of assessing rich data than measuring, since an inductive analysis seeks to reveal unexpected issues.

During my first trip in May 2016, I attended the proceedings of one of the first court cases involving the Carmichael Project, *Australian Conservation Foundation Incorporated v Minister for the Environment and Energy*, at the Federal Court in Brisbane (described in detail in the next chapter). This was my first time observing an environmental proceeding in an Australian court room. Being physically present allowed me a closer examination of how a single government decision involving the Carmichael Project can be interpreted differently by each of the stakeholders: the government, the corporation and the environmental activists. Listening to the arguments of the ACF, Adani, and council on behalf of the Minister for the Environment gave me a preview of the types of techniques of neutralisation I would later write about. Sitting in on this case also allowed me to put a face to some of the names of stakeholders

that I had read about – such as those in the Queensland Environmental Defenders Office, who represented the Australian Conservation Foundation – during the early stages of my thesis. This was beneficial to my understanding of ‘who is doing/saying/thinking what’, as these stakeholders were constant characters in the Carmichael Project’s developing story. Perhaps the most eye-opening moment of being in the audience, however, was witnessing the demeanour of Adani’s and the Minister’s counsels. While the lawyers for the ACF were making their statements, it shocked me to see the opposing counsel laugh and mock the ACF to each other. As I was beginning to think about the increase in violence against environmental activists around the world, watching the counsels’ behaviour made the topic more ‘real’. If lawyers, who were supposed to conduct themselves professionally (at the very least in a courtroom) were acting this way towards environmental lawyers, I wanted to learn how ‘ordinary’ activists were being treated outside the courtroom, in ‘real’ life. The field notes I wrote while observing this case have influenced the two articles that I had co-authored with my supervisors during my thesis on the ways environmental activists can ‘hit the powerful where it hurts’ and the dynamics between activism and the state. Witnessing this court case was thus beneficial for my thesis progression for a number of reasons even though the data collected from this particular court case comprises of the same type of data that I collected from each of the other cases.

During that same visit to Brisbane in May 2016, I attended the ‘Reef Emergency Community Forum’ hosted by Kirsten Lovejoy, climate adaptation policy analyst and then-Greens candidate for Brisbane, and the Mt Coot-tha Greens. While I was able to familiarise myself with the relevant legal counsels during the ACF’s case, this event allowed me a more personal introduction with some of the local women and men challenging Adani’s actions on the ground. Approximately thirty Brisbane locals attended the forum. The attendees were diverse in age and background, revealing how stopping Adani was a priority for people in various demographics and not just in one particular group, as ‘Greenies’ are often depicted. The event was set up to have three presenters, each giving a 20-minute presentation before opening the floor to questions from the audience.

The keynote speaker that the forum hosted was Dr. Ove Hoegh-Guldberg, Director of the Global Change Institute at the University of Queensland and one of the world’s leading expert on coral reefs. Incidentally, Dr. Hoegh-Guldberg’s expert report was used in the ACF case that I had just witnessed. Dr. Hoegh-Guldberg’s work on the effects of climate change on coral reefs has also been published in various scientific journals and referenced throughout my thesis. His message was clear: if the Carmichael Mine is built, the Great Barrier Reef will die. Hearing this from an expert reinforced the severity of the stakes of the Project. One point that Dr. Hoegh-Guldberg made that particularly impacted me regarded the renewability of the Great Barrier Reef. If adequately protected, he stated, the Reef can provide tourism revenue for Queensland and Australia indefinitely. Beyond tourism, however, the Reef also provides a lesser-known benefit, this time to the entire world: medicine. Dr. Hoegh-Guldberg referred to coral reefs as the ‘medicine cabinets of the 21st century’ and explained that since corals and the animals that live in coral ecosystems have been stationary for millions of years, many have evolved complex chemical defences from predators. One species of animal only found in the Great Barrier Reef has been linked to medicines developed to treat multiple illnesses such as cancer, heart disease, arthritis, and Alzheimer’s disease. Furthermore, there are millions of species native to the Great Barrier Reef whose potential benefits remain undiscovered and, due to the threat of climate change, could remain undiscovered. As I was just beginning to become exposed to intricate scripts regarding economic benefits of the Carmichael Project, this lesson about the medicine cabinet of the 21st century was an important one as it debunked the claims of economic necessity for the Project.

The forum also hosted two additional speakers: Dr. Susanne Becken, Director of the Griffith Institute for Tourism and Professor of Sustainable Tourism at Griffith University; and Dr. Mark Gibbs, climate adaptation practitioner. Together, Dr. Becken and Dr. Gibbs spoke about the urgency to curb climate change impacts on the Reef. Stopping the Carmichael Mine, according to the speakers, was the most basic and fundamental step in saving the Reef but additional protective measures through sustainable tourism and climate change technology were also necessary. The complexities surrounding climate change impacts on the Reef and the urgency required to address these impacts were presented in an accessible format to a non-specialist audience. This format of discussion influenced my thinking about the links between civil society and environmental activism and my notes on the forum also contributed to my published articles. Attending the forum and listening to the questions raised by citizens of Brisbane and the answers given by the guest speakers shaped my preliminary understanding of the issues surrounding the Great Barrier Reef.

During my second and third field visits, in September 2017 and June 2018, I had arranged to have informed discussions with ten key players, mostly activists, in the Carmichael Project's developments. To protect their identities – as most had wished to remain anonymous if I chose to write about our meeting – their names will not be revealed. The purpose of these discussions were twofold: First, I was curious to hear *anything* they wanted to tell me about their roles in the debate surrounding the Carmichael Project. Our conversation was loosely structured and guided by what each stakeholder chose to share, which revealed what she or he considered most important to disclose to a PhD candidate undertaking an analysis of the Project. In turn, this exposed their thought processes, motivations, and priorities on this particular environmental issue. Second, I sought fresh perspectives on the issues I would be writing about; anything the media had not covered. The activists I had spoken to were actively engaged in protest – sometimes on the proposed Carmichael site. They had the personal experiences of environmental activism that I was reading (and later, wrote) about so I wanted to pick their brains.

These conversations were fascinating and I am thankful that these women and men took time out of their schedules to speak with me. I chose three visits because, as Picken (2013: 343) writes, 'the time required in the field has become more dependent on the social enquiry, how much and what kind of access is available, and how much information [the researcher] already has'. My notes from these conversations are excluded from the formal data that informed this thesis – as these informed discussions were not interviews as such – but my recollections of them have allowed me to write portions of this thesis with a deeper understanding of the personal nature of the Carmichael Project. The 'micro', or personal, can often be overlooked when studying the 'macro' of global environmental issues, and I am thankful to have had these conversations that reminded me that the 'personal is political'.

These field visits to Brisbane and informed discussions with stakeholders contributed to my understanding of the Carmichael Project as events unfolded. As Picken (2013:343) states, 'fieldwork must be designed to collect information about what people say and do, how they represent themselves and others, what belief systems might underpin their actions, what actions constitute processes and routines...' My archive of data was made richer by these accounts and visits as they gave me an insider point of view of the sense making process of stakeholders – crucial for a case study. My collection of data on the Carmichael Project along with the knowledge I gained in Brisbane talking to the stakeholders and sitting in on the court case and

reef forum has given me a detailed, comprehensive and accurate account of what was happening. The task, then, was to analyse this massive amount of data.

Thematic Analysis

This thesis, as a work of qualitative research, is intended to generate knowledge grounded in human experience (Sandelowski 2004). In *The Discovery of Grounded Theory*, Glaser and Strauss (1967) describe studies using grounded theory, a research methodology widely used in the social sciences, as beginning with a question or the collection of qualitative data. My study began with a question, but – unlike the grounded theory approach – does not involve the construction of a theory upon reviewing the data. So, while qualitative analytic methods are diverse and nuanced (Holloway and Todres 2003), and there are elements of grounded theory in my methodology, ultimately thematic analysis was chosen because of its (1) compatibility with my inductive approach to the study and (2) its promotion of trustworthiness through its process.

Thematic analysis is defined by Mills et al. (2010: 926) as:

[A]n analytic approach and synthesising strategy used as part of the meaning making process of many methods including case study research. As a sense-making approach, thematic analysis is a tactic for reducing and managing large volumes of data without losing the context, for getting close to immersing oneself in the data, for organising and summarising, and for focusing the interpretation.

I wanted to search for certain themes or patterns across my entire data set (because of its reliance on secondary data), rather than within each data item. Thematic analysis suits this inductive style, as:

Themes emerge from and are grounded in the data. Through a process of noticing patterns...defining emerging themes, constantly comparing data against codes and categories, cycling back through documents to revise coding, recording interpretive insights in research memos, and developing data displays that reveal overarching patterns, the researcher builds a complex exploratory, descriptive or explanatory case analysis grounded in the particulars of the case or multiple cases (Mills et al 2010: 926).

While themes are described as ‘emerging from the data’, I acknowledge the active role I have played as a researcher in identifying patterns and themes. As Ely et al. (1997: 205-206) state, ‘If themes reside anywhere, they reside in our heads from our thinking about our data and creating links as we understand them.’ Researching and writing about a defining moment in Australian history, specifically one involving the environment, was both a controversial and emotional endeavour. In reflecting on and honestly assessing my role in the study early on, as Liampottong and Ezzy (2005) recommend, I was able to be conscious of my position throughout the research process. My position includes one as an ‘outsider’ in that I am an American who moved to Australia to examine a controversial environmental and political moment in Australian history and I have never worked or had other first-hand experience in the industry I am writing about. My position also is that of an ‘environmentalist’ – through my undergraduate studies in politics and philosophy I had developed a strong sense of environmental justice and passion for animal welfare. I would further identify myself as a member (in ideology) of Greens parties and therefore also lean towards socialist democratic

policies, recognising and critiquing the injustices caused by capitalist ideologies and neoliberalist policies. In fact, one of the reasons I chose to embark on a study in green criminology was because I very strongly personally identified with the field's goals and philosophy. My personal beliefs do not prevent my conducting of a trustworthy study on the Carmichael Project, however, as I am not naïve to but very much aware of my position. In being able to articulate these beliefs I am not restrained by them and have studied the Carmichael Project as guided by the data. Doing a thematic analysis has also worked to keep my research unbiased and trustworthy during data collection, data analysis and report writing. Table 2.4 summarises the six phases of thematic analysis, as described by Braun and Clarke (2006), alongside Lincoln and Gruba's (1985) criteria for trustworthiness at each step of the research process.

Table 2.4 Phases of Thematic Analysis and Ensuring Trustworthiness in Research

Phases of Thematic Analysis	Ways of Ensuring Trustworthiness
Phase 1: Familiarising yourself with your data	Prolong engagement with data; Documentation of theoretical and reflective thoughts; Documentation of thoughts about potential codes and themes; Storing of raw data in well-organised archives; Keeping records of all data field notes
Phase 2: Generating initial codes	Reflexive journaling; Documentation of code generation;
Phase 3: Searching for themes	Diagramming to make sense of theme connections; Keeping detailed notes about development and hierarchies of concepts and themes
Phase 4: Reviewing themes	Testing for referential adequacy by returning to raw data; Themes and subthemes reviewed by supervisory team
Phase 5: Defining and naming themes	Documentation of theme naming process
Phase 6: Producing the report	Describing process of coding and analysis in sufficient detail; Thick descriptions of context; Report on reasons for theoretical, methodological, and analytical choices throughout the entire study

Source: (Braun and Clarke 2006; Lincoln and Gruba 1975; and Nowell et al. 2017)

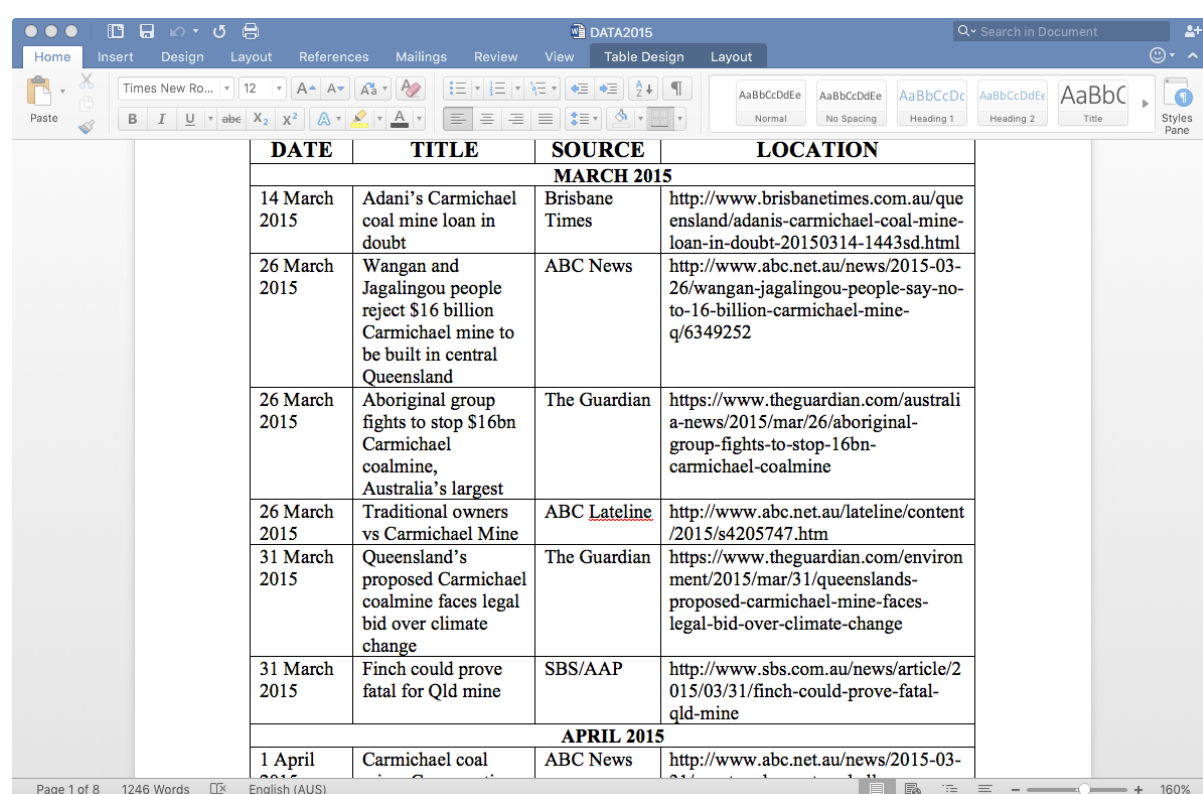
Due to the fact that the chosen and logical 'end date' of the parameters of data was 25 November 2017, over two years into my position as a PhD researcher, and due to the ongoing nature of the Carmichael case, the process of data collection, data analysis, and the writing of my findings have not been distinct steps. Instead, and as it is often the case in qualitative research, these 'steps' have been interrelated and occurred simultaneously throughout the research process (Creswell 2007). Although I will present my thematic analysis as a linear, six-step method similar to that developed by Braun and Clarke (2006), the actual process was more reflective, developing over time, and involved constantly moving backwards and forwards

between these steps. As Holliday (2007: 94) states, data collection, analysis and writing occur simultaneously ‘and feed off one another.’

Phase 1: getting to know the data

The qualitative data used in this study takes on a number of various forms, as described in the previous sections. At the start of data collection, I set up seven Word documents, one for each of the years in the data parameters (2010-2017) to chronologically archive the media articles that would be used for analysis. A screenshot of the 2015 document is presented below as an example:

Figure 2.1 Screenshot of 2015 media data document



DATE	TITLE	SOURCE	LOCATION
MARCH 2015			
14 March 2015	Adani's Carmichael coal mine loan in doubt	Brisbane Times	http://www.brisbanetimes.com.au/queensland/adanis-carmichael-coal-mine-loan-in-doubt-20150314-1443sd.html
26 March 2015	Wangan and Jagalingou people reject \$16 billion Carmichael mine to be built in central Queensland	ABC News	http://www.abc.net.au/news/2015-03-26/wangan-jagalingou-people-say-no-to-16-billion-carmichael-mine-q/6349252
26 March 2015	Aboriginal group fights to stop \$16bn Carmichael coalmine, Australia's largest	The Guardian	https://www.theguardian.com/australia-news/2015/mar/26/aboriginal-group-fights-to-stop-16bn-carmichael-coalmine
26 March 2015	Traditional owners vs Carmichael Mine	ABC Lateline	http://www.abc.net.au/lateline/content/2015/s4205747.htm
31 March 2015	Queensland's proposed Carmichael coalmine faces legal bid over climate change	The Guardian	https://www.theguardian.com/environment/2015/mar/31/queenslands-proposed-carmichael-mine-faces-legal-bid-over-climate-change
31 March 2015	Finch could prove fatal for Qld mine	SBS/AAP	http://www.sbs.com.au/news/article/2015/03/31/finch-could-prove-fatal-qld-mine
APRIL 2015			
1 April 2015	Carmichael coal	ABC News	http://www.abc.net.au/news/2015-03-31/carmichael-coal

Organising the media articles (which make up the largest number of data items) that I would use for the analysis in this way allowed me to familiarise my data as I was collecting it. I would read each article before logging it into the document and, each time I logged in a new entry, I was forced to scroll past all of the previous entries, which helped reinforce each article's content. This method of organising my data allowed me to ensure a diversity in sources (e.g. not having all media articles from March 2015 come from the Guardian), eliminate any over-use or repetition of sources (e.g. some media reports were merely copies or references to the same article in another source – in this case, the ‘primary’ source was kept), and identify any gaps in time periods that would need bridging, perhaps with other types of data items.

In addition to Word documents for media articles, I organised the other types of data in a similar fashion. For court documents, for example, I made a folder for each case, downloaded each document (e.g submission, evidence, decision) and saved them in their respective files. The

same was done for Adani's various applications for the Carmichael Project, relevant Queensland and federal legislation, and NGO reports.

Since I would read each of the data items as I found it, I arrived at the analysis with prior knowledge of the data and some initial thoughts. I documented my theoretical and reflective thoughts that developed through my immersion in the data in a notepad. I also made notes about ideas for coding, which were helpful in subsequent phases.

Data management was imperative to the success of this large, complex project. Small, practical decisions made early on in the thesis, such as naming files to represent particular court cases, made a big difference later on when I needed to quickly access a particular file for the write-up of the analysis.

Phase 2: generating initial codes

The 'second phase' of thematic analysis began once I had read and become familiarised with the data up from the 2010 Linc Energy sale to Adani until a few years of data later, approximately 2015. At this point, I had ideas about what was in the data and why it was interesting in the context of my study. Nowell et al. (2017) describe qualitative coding as a process of reflection and a way of interacting with and thinking about data. This process of conceptualising on the first level of abstraction is referred to as 'open coding' by Glaser and Strauss (1967). Producing codes from the data allowed me to simplify the data items, only focusing on specific characteristics.

I systematically worked through the entire set of data that I had so far collected, identifying important sections of text and attaching labels to index them as I went on. The Word document for March 2015 media articles, for example, was modified with an additional column for codes. As I continued to collect data (in the form of media articles, as these had the longest span) I would code each item as I added them into the organising Word documents. Throughout the coding phase, I kept a personal journal where I would keep track of my emerging impressions of what the data meant and how they relate to each other.

Phases 3-5: Searching for, reviewing, and defining themes

When I had mostly completed coding (barring any media articles that were being collected and coded as they were released), I created a separate document containing the list of different codes that I identified across the data set. This process produced a clearly accessible snapshot of the labels that described the themes or issues in the data. I then sorted and collated all the potentially relevant coded data extracts into themes, as defined by Braun and Clarke (2006: 10):

A theme captures something important about the data in relation to the research question, and represents some level of *patterned* response or meaning within the data set. (emphasis in original)

This putting together data in new ways after open coding was referred to as 'axial coding' to Strauss and Corbin (1990, 1998). The themes were initially generated deductively from criminological theory and prior research. Since my research questions included concepts of techniques of neutralisation and denial; crimes of the powerful and state-corporate crime; and

ecocide, these concepts were used to guide the development of themes in the data. I found drawing thematic networks, or webs, to be helpful in organising the codes to depict my thought process and procedure of moving from text to interpretation. These webs were similar to what Strauss and Corbin (1990, 1998) developed through their ‘coding paradigm’: creating a framework (web) of relationships (themes) between codes.

Once my initial set of themes were developed, I reviewed the coded data for each theme to ensure that the data items were accurately organised. I found one of my themes, ‘eco-justice’, needed to be broken down into separate themes, ‘environmental activism’ and ‘environmental justice’, in order to better support the diverse data. In addition, I originally thought to have separate themes for each of the courts that heard a case relating to the Carmichael Project, but found the data was too thin and instead collapsed the themes according to jurisdiction. After another review, I had a good idea of the different themes, how they interact, and the story they told about the data. I was then able to revisit the names of all themes with the consideration of how each theme fit into the overall story about the entire data set in relation to the research questions.

The use of open and axial coding, or organising the codes into themes, allowed me to see how the relationships between the codes as well as how they interacted. By physically arranging the immense amount of data in this way, I was able to see how such a complex social and political moment – the Carmichael Project – was developing, and by extension, develop my understanding of what was happening in order to answer my research question.

Phase 6: producing the report

Once the final themes were established, I started the process of writing up my analysis. King (2004) describes direct quotes as essential components to final reports. Shorter quotations are used within my narrative, to aid in the understanding of points of interpretation and demonstrate prevalence of the themes (Nowell et al. 2017). Longer block quotations can be found at the beginning of each relevant chapter and occasionally included within chapters to embed raw data within the analytical narrative. All of the themes are interpreted and the significance of their patterns are discussed throughout the thesis. Some themes are presented in tables to aid their articulation, as shown in the chapters on techniques of neutralisation and denial. My discussion often returns to the original theoretical literature used to inform the study, as well as research and other literature that supported my arguments.

While these six phases of thematic analysis are useful to depict the process of turning raw data into a coherent argument for a thesis, I was involved in multiple steps at the same time and sometimes worked backwards between phases. Thematic analysis has been useful, in my experience, to organise data; signpost areas for further research; and providing useful headings that structured my writing (Holliday 2007). The result of this process was an immersion in the research and an accurate account of the Carmichael Project.

Conclusion

This thesis is a case study in green criminology. Three criminological concepts – techniques of neutralisation and denial of harm; crimes of the powerful; and ecocide – and the relationship between them form the basis of my study. Perspectives of harm and ecological justice are used to analyse the Carmichael Mine and Rail Project. Data was retrieved from submissions, evidence and decisions of court cases pertaining to the Project; local, federal, and international

legislation, agreements, and treaties; media reports; and websites. This data was thematically analysed to form the narrative of my research.

The developments surrounding the Carmichael Project's approval and operation have been ongoing throughout the data collection, analysis, and writing of this thesis. On one hand, this presented a challenge with regard to setting parameters for collecting data and resisting the urge to comment on 'everything' that has to do with the Project. On the other hand, studying an event that is occurring in the present allowed me the opportunity for a type of immersion with my study that would not be possible if I were studying a mining project of the past. Furthermore, utilising online sources allowed me to receive quick updates on developments but I was able to *experience* the subject of my studies through observing a trial (whose decision would influence both the timeline of the Project and my thesis) and by having conversations with people who were in the midst of protesting the Project (the same people who I first read about and would later refer to in my writing). Although the debate surrounding the Carmichael Project remains unresolved, it has provided me with a living subject of study, which I believe makes a unique contribution to the field of green criminology.

The next chapter provides an overview of the historical, political and social context of the Carmichael Project and introduces the key stakeholders. It describes the timeline of events that led to Adani applying for a mining lease for the Carmichael Project with the Australian Government and continues with an outline of legal cases that have resulted from the granting of the mining lease.

Chapter Three

THE ADANI GROUP AND THE CARMICHAEL PROJECT

“Adani Australia is proud to be leading the way in opening Australia’s Galilee Basin, generating jobs for regional Queensland and stimulating Queensland’s resource-strong economy” (Adani Australia 2016).

“Adani Australia recognise the traditional owners of the land of which the Carmichael mine, rail and port are located, the Juru, Jangga, Birriah and Wangan and Jagalingou people. Adani is committed to creating sustainable employment and economic opportunities for Traditional Owner communities” (Adani Australia 2016).

“Adani will undertake its Australian operations in a manner, which meets our legal obligations, recognises the importance of working closely with our internal and external stakeholders, and strives to prevent environmental harm and improve our environmental performance. We understand that our environmental performance is critical to the sustainable success of the organisation and we will implement an environmental management framework that is accessible, innovative and enduring” (Adani Australia 2016).

Introduction

At the time of my writing of this thesis, ‘Adani’ and ‘the Carmichael Mine’ were popular terms both in the news and in conversation. The majority of people I spoke with throughout my three and a half years working on this case study had, to some degree, an understanding of the controversial mining project. A number of key events that were necessary to allow for the possibility of a Carmichael Project, however, took place long before ‘Adani’ became a household name.

The purpose of this chapter is to go back to the beginning, when Gautam Adani first established the Adani Group, and to describe the events that allowed for the Carmichael Project in the present day. The Carmichael Project was not born out of chance; it is the result of a series of well-thought and planned political decisions, economic opportunities, and social attitudes by various governments and groups.

This chapter provides the background information necessary to understand the significance of the proposed Carmichael Coal Mine and Rail Project, both as the topic of my case study and as a part of Australian (and global) history. It is divided into sections that outline the life of Gautam Adani and how he started Adani Group Pty Ltd; The Adani Group’s evolution and its environmental history; and the Carmichael Coal Mine and Rail Project, including the litigation and funding of the Project.

Gautam Adani and the Adani Group

In 1980 Gautam Adani stopped working for his family’s textile business, left his home in Ahmedabad, and moved to Mumbai, where he had secured a position as a diamond sorter for the now-key player in the global diamond business, Mahendra Brothers (Elliott 2017).

Two years later, Gautam Adani set up his own brokerage. His first sale earned him 10,000 rupees (Elliott 2017). By the age of 20, Gautam had made his first million rupees (Mehta 2014). Shortly thereafter, his brother Mansukhbhai had purchased a plastics manufacturing unit and Gautam moved back to Ahmedabad to manage the business. His responsibilities at the unit included overseeing the import of key raw materials for the manufacturing of plastics (Elliott 2017). This opportunity allowed him a first glimpse into the complexities of global trade, a space that he would return to with the Adani Group.

As Gautam was learning his hand in foreign affairs, the Indian government announced a comprehensive policy that incorporated both export and import policy for the first time (Jain et al. 2010). The Export-Import Policy (EXIM) of 1985 was initially introduced for a period of three years, with the goal of controlling the export of the resources ‘whose supply demands that their exports be regulated in the interests of the country’ (Exim Policy 2016).

Gautam Adani saw an opportunity to utilise his knowledge of global trade in his country’s new EXIM Policy. In 1988, with a capital of 500,000 rupees, the Adani Group and its flagship company, Adani Exports Limited, was established as a trader of power and agricultural commodities (Adani 2016). In 1993 it grew into a public limited company and in 1994 entered the capital markets with an IPO (Mehta, 2014). The swift developments of the youngest trading house in India were noticed by the Ministry of Commerce, who awarded Adani Exports Limited the status of “Super Star Trading House” in 1994 (Adani 2016).

When the Gujarat Government decided to open infrastructure development to the private in the 1990s, Adani Group secured the contract to Mundra Port, strategically located on the Gulf of Kachchh, across the ocean from the Middle East, Africa and Europe. In 1998, Mundra Port was incorporated as Gujarat Adani Port Limited and it began operating three years later.

Figure 3.1: Adani's Mundra Port

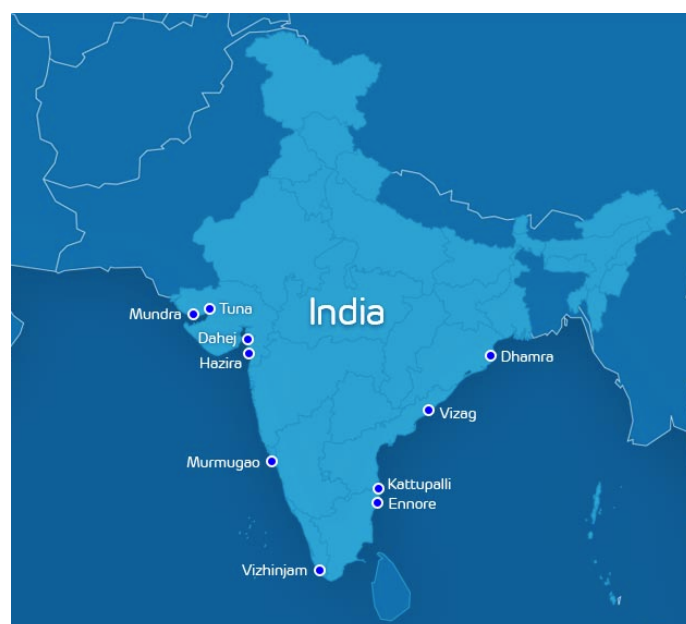


(Adani Ports 2016)

In 2000, the Indian federal government replaced its Export Processing Zone (EPZ) scheme with a new Special Economic Zone (SEZ) scheme. The policy promoted SEZs through several new benefits, including tax incentives and exemptions from investment restrictions of India's domestic economy (Khan 2008). Adani Group incorporated the Mundra Special Economic Zone (MSEZ) in 2003. Mundra Port signed an agreement to handle crude oil and set up a mooring facility. It has been rapidly expanding ever since, growing from a size of 2 berths to 24. MSEZ merged with "Adani Chemicals Limited" and "Gujarat Adani Port Limited" and in 2006 changed its name to "Mundra Port and Special Economic Zone" (MPSEZ).

On January 6, 2012 MSPEZ once again changed its name, this time to "Adani Ports and Special Economic Zone Limited" (APSEZ), as a part of a strategy to collaborate the brand with the global port infrastructure business of Adani Group (Pandit 2012). In 12 years, Mundra Port became the first port in India to reach the 100 million metric tons of cargo mark (Adani.com, 2016), becoming India's largest commercial port. Gautam Adani's son, Karan, has managed port operations for APSEZ since 2009; in 2016 he became its CEO (Mehta 2014). Today APSEZ is the largest private port operator in India, dominating the Indian coastline with ports and terminals in ten locations, as shown in the image below.

Figure 3.2: Map of ports and terminals operated by APSEZ



(Adani Ports 2016)

In 2007 Adani Group purchased the Bunyu Mine, located on the oil-rich Bunyu Island, from the Indonesian Government (Adani 2016). This purchase marks the beginning of the company's interest in the energy sector. One year later, Mundra Power Plant was built and a 15-year fuel supply agreement was signed with the Indonesian government in order to import coal from the mine to Mundra Port for use by the Mundra Power Plant. Today, the Mundra Power Plant is one of the biggest thermal power plants in the world (Adani 2016). The country's largest importer of coal soon sought to expand its domestic base by developing a new coal block in Orissa. The block has been estimated to contain reserves of 1.6 billion tonnes of coal, with an annual production capacity of 40 million tonnes (Economic Times 2010). This deal allowed the company to reach a total of 110 million tonnes per annum coal mining contracts in India, becoming one of the largest mining companies in the private sector (The Economic Times 2010).

Adani Group and the Galilee Basin

Adani Group continued to expand its coal reserves. In 2010 the company purchased the Galilee coal tenement in Queensland, Australia from Linc Energy for \$500 million in cash, plus a royalty of \$2 per tonne over 20 production years (Linc Energy 2010). Adani's official reason for seeking to expand its business into Australia remains unclear. However, Australia remains the world's largest exporter of coal and, as later discussions will demonstrate, the Australian legal framework for mining projects encourages mining investment. Adani also described the Galilee Basin as the 'last undeveloped coal resource within Queensland' and claims demand for coal is 'expected to continue to experience strong growth in the next decade' in the Project Justification and Project Rationale sections of its Initial Advice Statement to the Queensland Government (GHD 2010).

The sale to Adani was Linc Energy's largest deal with an Indian company, with a net present value of \$1.5 billion or \$3 billion over 20 years if the seam was mined out, according to the company's chief executive, Peter Bond (Fraser 2010). Linc Energy, based in Brisbane and

listed in Singapore, sold the royalty it was due to receive back to Adani for \$155 million in 2014 (Macdonald-Smith 2014). Bond saw the decline of thermal coal prices as an incentive to cash in the royalty rather than risk keeping it long-term. The buy-back also allows Adani to have full control over the net income from the coal reserves instead of owing Linc Energy a portion of the profits.

Adani Group made another international investment when it leased Terminal 1 (T1) of Abbot Point, Australia's northernmost deep-water coal port, for 99-years on 1 June 2011 (North Queensland Bulk Ports Corporation 2016). The deal, signed by the Queensland Government and Mundra Port Pty Ltd (the Australian subsidiary of Mundra Port and Special Economic Zone Ltd and a part of the Adani Group), cost approximately \$1.8 billion and was a part of the Queensland Government's privatisation of government-owned assets that began in 2009 under Premier Anna Bligh (Tan 2012; The State of Queensland Department of Premier and Cabinet 2009). At the time, Abbot Point comprised of rail in-loading facilities, coal handling and stockpiling areas, and a jetty and conveyor connecting to two berths and two shiploaders located offshore (North Queensland Bulk Ports Corporation, 2016). It had a capacity of 50 million tonnes per annum. Adani Group sought to invest \$750 million to develop another terminal, Terminal 0 (T0), which would allow another 35 million tonnes of thermal coal exports per year (The Economic Times 2011). This expansion would allow for coal mined from the Galilee Basin to be exported to India (North Queensland Bulk Ports Corporation 2016).

Adani received approval from the Minister for Sustainability, Environment, Water, Population and Communities under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC) for the T0 Terminal in December 2011 (The Australian Government 2012). The proposed development was determined to be a 'controlled action under the provisions of the EPBC Act, as the action has the potential to have a significant impact on a number of matters of National Environmental Significance' (The Australian Government 2012: 2). The controlling provisions under the EPBC Act were listed as:

- World Heritage properties (sections 12 & 15A);
- National Heritage places (sections 15B & 15C);
- Listed threatened species and communities (sections 18 & 18A);
- Listed migratory species (sections 20 & 20A);
- Commonwealth marine areas (sections 23 & 24A); and
- Great Barrier Reef Marine Park (sections 24B & 24C).

The Great Barrier Reef Marine Park Protection Authority (GBRMPA) approved the dumping of 3 million cubic metres of dredging spoil in the waters of the Great Barrier Reef as a part of the port expansion (Jabour 2014a). Two of the board members of the GBRMPA were subsequently investigated for potential conflicts of interest that included connects to mining companies (Jabour 2014b). Jon Grayson was appointed to the GBRMPA by the former Labour Government. He set up and owned one-sixth of 'Gasfields Water and Waste Services', which, although inactive, could potentially benefit from a growth in the industry (Jabour 2014b). Tony Mooney, a former Labour federal candidate and an executive for the mining company Guildford Coal, claimed that none of Guildford Coal's proposed projects were operational in Queensland. Both Grayson and Mooney denied any allegations of a conflict of interest (Jabour 2014b). Environment minister Greg Hunt ordered legal expert Robert Cornall, to conduct the inquiry. Cornall found Grayson and Mooney have not breached their public duty as board members of the authority and both properly disclosed their financial and personal interests (Milman 2014b). The authority took no further action in the matter.

Figure 3.3: Map of Proposed Dumping Area for T0 Terminal



(source: Jabour 2014a)

In 2013 Adani Ports announced the sale of its interest in T1 to a private Adani family company in Singapore. Since then, Adani Ports has not listed the \$2 billion port anywhere among its subsidiaries on its annual report. The \$2.2 billion in associated debt was also absent from its balance sheet (Robertson 2016a). Years after the announcement of the transfer of ownership of the port, the transaction has still not been finalized. The incomplete transaction raises a question about corporate transparency: there is a clear discrepancy between what the Australian Securities and Investments Commission (ASIC) and Adani Ports' shareholders in India are being told regarding the status of a major global transaction. This concealment also raises a question about Adani Mining's financial position: the company had lodged a net debt in March 2016 with ASIC while simultaneously seeking a federal government loan for the rail line. According to Tim Buckley of the Institute for Energy Economics and Financial Analysis, Adani's behaviour complicates 'any efforts at due diligence' by the Northern Australia Infrastructure Facility that is considering funding the rail project (Robertson 2016a). The approval of the sale by the Foreign Investment Review Board has expired, yet Adani Ports did not inform the Mumbai stock exchange or reverse the transaction (Robertson 2016a). An Adani spokesman stated that there is an intention to proceed to change ownership of Abbot Point but it remains "subject to financier approval" (Robertson 2016a). This issue has not been referred for further investigation by politicians or regulators.

The Carmichael Coal Mine and Rail Project

The purchase of the Galilee coal tenement from Linc Energy and the Abbott Point port terminal from the Queensland Government allowed for the possibility for Adani Group to set up a large scale coal mining operation. In 2010, Adani Mining, a subsidiary of Adani Group, submitted a proposal for the Carmichael Coal Mine and Rail Project in Queensland. The Initial Advice Statement (IAS) on the Carmichael Coal Mine and Rail Project was released by Adani Mining Limited that year as a requirement under Australia's *Environmental Protection and Biodiversity Conservation Act of 1999* (EBPC). The IAS provides the Queensland Coordinator General with information about the proposed mining plan so that a decision could be made as

to whether the project should be classified as a ‘significant project.’ Under the *1971 State Development and Public Works Organisation Act of Queensland* (SDPWOA), any development given the “significant project” label requires an Environmental Impact Statement (EIS).

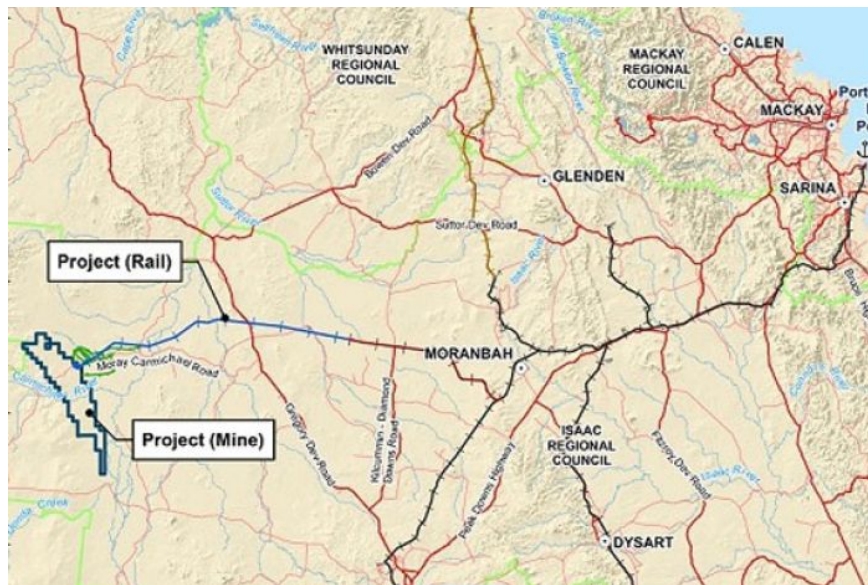
Carmichael Coal Mine and Rail Project’s IAS claimed that the project would produce 60 million tonnes of coal annually for 150 years, making it one of the largest coal mines in the world. According to the IAS, approximately 4,000 jobs during construction and another 5,000 permanent jobs be created during the mine’s lifetime and the ‘last undeveloped coal resource within Queensland’ would be utilised (GHD 2010). The Carmichael Project’s plan includes the transport of the mined coal by a rail line to the Port of Abbot Point, where it would then be shipped over 8000km to India’s Vizag Port, which is also owned by the Adani Group. Coordinator General of Queensland, Barry Broe, declared the project a “significant project” under the *State Development and Public Works Organization Act of 1971*.

Figure 3.4: Location of Carmichael Mine in Queensland



(Adani Mining 2016a)

Figure 3.5: Map of Proposed Carmichael Mine and Rail Project



(Adani Mining 2016a)

In its 2011 EIS, Adani Mining reduced the projected lifetime of the mine to 60 years and lowered the expected job creation to 3,920. The Coordinator General took nine main issues into consideration during his evaluation of the EIS:

1. Matters of national environmental significance (threatened species, threatened communities, Great Barrier Reef World Heritage Area, wetlands of international importance, groundwater, surface water);
2. Matters of state environmental significance (flora and fauna, Bygona West Nature Refuge, offsets);
3. Mine issues (subsidence, mine waste, rehabilitation and final land use),
4. Landholder impacts;
5. Flooding from the rail line;
6. Coal dust management;
7. Road impacts;
8. Social and local economic impacts; and
9. Environmental management plans, proponent commitments and conditions (the State of Queensland 2014).

In 2014 the Queensland Coordinator General concluded the ‘environmental impact assessment requirements of the SDPWO Act for the Carmichael Coal Mine and Rail project have been met and that sufficient information has been provided to enable a thorough evaluation of the potential impacts of the project’ (The State of Queensland 2014). He argued there are significant state benefits to be derived from the development, and that any undesirable environmental impacts could either be ‘avoided, minimized, mitigated or offset’ through the strict adherence of the measures outlined in the EIS (The State of Queensland 2014). The Coordinator General’s decision outraged many Australian citizens and environmental groups throughout the state, sparking a legal battle regarding the approval of the Project that is still ongoing at the time of my writing of this thesis.

As a World Heritage Property, the Great Barrier Reef is subject to status assessments by UNESCO. In early 2012, UNESCO issued a warning to Australia, stating that the GBR was under threat and could be listed as ‘in danger’. Such status would allow the Australia to seek assistance through the World Heritage Fund, but would potentially damage tourism and embarrass the Australian Government for failing to safeguard the Reef (Greenpeace 2017). In 2015, as a result of lobbying by the Australian Government, UNESCO declined to list the GBR as ‘in danger’, instead placing it on a ‘watch list’, subject to monitoring over the next five years, and instructed the Australian Government to demonstrate significant progress in reef conservation efforts by the end of 2016. This pressured the Australian Government to publish its ‘Reef 2050 Plan’, the framework for protecting and managing the GBR, in March 2015. While the report acknowledges that climate change is the ‘biggest long-term threat’ to the Reef’s health, little action was proposed to curb the impacts of climate change. The main proposals included a partial ban on dumping dredge spoil from coral port developments in the GBR, \$100 million to improve water quality, and reductions in pesticide and sediment pollution.

A bill that would prevent land clearing (one source of carbon emissions and runoff pollution to the reef), a key part of the 2050 Plan, failed to pass in Queensland’s state parliament in August 2016 (Burke 2016). During the following month, the Australian Government claimed that it was ‘making good progress’ in protecting the GBR in its first annual update on the Reef 2050 plan. The gravity of the effect of climate change on the Reef was largely dismissed - climate change was only mentioned four times in the 36-page document, as one of the “range of sources” of pressure facing the Reef (Department of Energy and the Environment 2015).

In 2017, the Great Barrier Reef Independent Review Group issued a report on the progress of the implementation of the Reef 2050 Plan. The report indicated that the 2016 coral bleaching had set back the Plan’s objective by at least two decades, with overall progress described as “less than anticipated in a number of important areas” (Great Barrier Reef Independent Review Group 2017). Following this report, it was suggested that the Reef 2050 Advisory Committee changes its goal to one that can “maintain the ecological function” of the GBR, since the decline of the Reef’s health and viability was now inevitable (Great Barrier Reef Independent Review Group 2017).

Later that year, the World Heritage Committee completed a review of the Great Barrier Reef. Despite reports of unprecedented coral bleaching, the Committee did not recommend the GRB be labelled as endangered; the Reef’s ‘official status’ was to remain on UNESCO’s World Heritage ‘watch list’ (UNESCO 2017a). It was later revealed that the Australian Government lobbied the World Heritage Committee in order to avoid having the Great Barrier Reef labelled as endangered (Milman, 2015; Hasham, 2015). The Australian Government’s lobbying of UNESCO is discussed in further detail in Chapter Seven’s analysis of the Carmichael Project as a state-corporate crime.

Adani Group’s Global Environmental Record

The Carmichael Project threatens to destroy or permanently damage important wetlands and farmlands, habitats of threatened and endangered species, significant natural heritage, and the traditional lands of the Wangan and Jagalingou people. Each of these sites of impact presents the federal and Queensland governments with legal grounds to refuse to issue the necessary approvals to the Adani Group.

If the federal and Queensland governments wish to issue the approvals regardless of the Project's potential environmental and social impacts, the governments should be confident that Adani Group will operate with caution and compliance with all relevant laws to minimise harm to the environment and Indigenous culture. The onus lies with the Adani Group to demonstrate that their previous operations have been executed with special attention to approval conditions and harm minimisation and they can therefore be trusted to undertake the Carmichael Project in the same manner. However, the Adani Group's environmental record for its past projects suggests the company has not and can not meet this standard.

Disregard for environmental laws in India: Mundra Port

Most evidence relating to the Adani Group's lack of compliance with environmental regulation and history of environmental harm concerns the company's activities with Mundra Port in India. One of the company's subsidiaries, Adani Ports and Special Economic Zone Ltd ('Adani Mundra'), which was previously called Mundra Port and Special Economic Zone Ltd (Adani Enterprises 2012) operates one of the world's largest coal-fired power plants, together with a port and special economic zone in Mundra, India, the 'Mundra Port and Special Economic Zone ('Mundra SEZ') (Adani Ports n.d.). The disregard for environmental regulation and resulting destruction of the environment in Mundra spans many years and has been the subject of significant litigation.

Following a complaint by a local organisation that works with fishing communities around Mundra, the Indian Ministry of Environment and Forests' ('Ministry') visited the Mundra SEZ in December 2010 (Environmental Justice Australia, 2015a). Environmental clearances for the Mundra SEZ required no existing mangroves be destroyed; that the creek would not be filled up or reclaimed; and any construction activities in the Coastal Regulation Zone must have approvals of the relevant State Government Departments/Agencies (Ministry of Environment, Forest and Climate Change n.d.).

The Ministry's investigation found evidence of large-scale destruction of mangroves near Adani Mundra's North Port caused by reclamation using dredged material, obstruction of tidal flow by a dredging disposal pipeline, obstruction of creek stems and natural seawater flow by reclamation along creeks, and the development of a township, airport, and hospital without the necessary environmental approvals (Ministry of Environment, Forest and Climate Change n.d.). The Ministry issued a 'show cause' notice to Adani Mundra on 15 December 2010 (Ministry of the Environment, Forest and Climate Change 2010), which stated Adani Mundra 'had violated the Coastal Regulation Zone Notification, 1991, approved Coastal Zone Management Plan of Gujarat dated 27 September 1996, and have not complied with the conditions listed in the environmental clearance letter issued by the Ministry...'. (Ministry of the Environment, Forest and Climate Change 2010).

On 23 February 2011, the Ministry ordered project managers not to initiate any new construction work in the coastal regulation zone (Ministry of Environment, Forest and Climate Change 2011).

Following complaints from Indian environmental NGO, Kheti Vikas Sewa Trust', the Ministry launched an independent Committee for Inspection into the Mundra SEZ, in September 2012 (Environmental Justice Australia, 2015a). In April 2013, the Committee issued its report. The allegations against Adani Mundra were summarised as:

- There has been widespread destruction of mangroves, which was strictly prohibited in the clearances granted;
- The creeks and inter-tidal system has been adversely affected, particularly, the Kotdi creek, which has been blocked;
- There has been mismanagement of fly ash from the thermal power plant, which has resulted in fugitive emissions during disposal and pollution of groundwater;
- The large volume of seawater stored in the unlined pond and conveyed through the intake and outfall channel has increased salinity and contaminated water sources;
- The original [high tide line/low tide line] has been distorted because of human made bunds and blocking of creeks;
- The company is non-compliant with conditions imposed at the time of environmental clearance (Ministry of Environment, Forest and Climate Change 2013a).

The Committee's report also found 'incontrovertible evidence of violation[s] of [environmental clearance] condition[s] and non-compliance. It must also be recognized that [Adani Mundra] has bypassed environmental procedures in certain cases' (Ministry of Environment, Forest and Climate Change 2013a). The report recommended the establishment of an Environment Restoration Fund, to be comprised of 1% of the project cost (or Rs 200 crore; approximately 4 million AUD – whichever is more), to be used to 'protect marine ecology, develop new mangrove conservation areas, restore and conserve creeks, conduct independent studies and monitoring, and for social infrastructure and livelihood support for fishing communities' (Ministry of Environment, Forest and Climate Change 2013a). In addition to the fund, the report made several other recommendations, including cancelling the environmental clearance for the North Port (Environmental Justice Australia 2015a).

Adani Group countered the findings in the report, claiming: that its power plant used technology to ensure there was no stray fly ash; that while any large development would effect the environment, it was certain that its net impact was positive; and that all government requirements were followed in setting up its projects (Bahree 2014).

In September 2013, the Ministry issued a 'show cause' notice to Adani Mundra, placing the company's North Port in 'abeyance' and requesting the company claim why the environmental clearance for the North Port should not be cancelled (Ministry of Environment, Forest and Climate Change 2013b).

The Mundra SEZ has been the subject of at least five substantial litigations. Two of these cases, which demonstrate the government of India's willingness to trust the Adani Group regardless of the company's past environmental violations and the people of India's lack of trust with the company, are described below.

Notably, in January 2014, the Supreme Court of India ruled that existing units in the SEZ may continue to function but new construction activity was not permitted while the government decided whether or not to grant an environmental clearance to Adani Mundra following the government's suspension of the North Port (*Skaps Industries India Pvt Ltd v Gajuba (Gajendrasinh) Bhimji Jadeja & Ors*, 2014). In July that year, the Ministry issued an environmental clearance with a significant number of new environmental conditions (Environmental Justice Australia, 2015a).

In 2013, residents of a village near Mundra have accused Adani Mundra of using land that was not allotted to the Mundraw SEZ for building employee accommodation. Adani Mundra was

able to prove that it had demolished the construction and consequently the case was dismissed (*Pravinsingh Bhurabha Chauhan and Others v State of Gujarat and Others 2013*, Environmental Justice Australia 2015a).

Corruption and environmental destruction throughout India

Other than Adani's environmental destruction and regulatory non-compliance in Mundra, the company has also been accused of other acts of corruption throughout India.

In July 2011 Adani Enterprises Ltd was found to have been 'actively involved in large scale illegal exports of iron ore causing huge loss to the Government' by the ombudsman of the state of Karnataka (Government of Karnataka 2008). Adani Enterprises Ltd was one of four operators at the Port of Belekeri in Karnataka, where iron ore from local mines was transported for loading onto ships for export. All operators of the Port of Belekeri were required to maintain records of iron ore exports and payments. The report found that Adani Enterprises Ltd:

Paid bribes to officials at the Port department, customs, police, the State Pollution Control board, local politicians and others to receive 'undue favour for illegal exports';
Routinely received trucks that were loaded with iron ore above the allowable amount. 'Over loading of trucks carrying iron ore is a routine practice leading to substantial iron ore theft';
Received iron ore from suppliers without permits to supply that ore; and
Forged multiple permits. (Government of Karnataka 2008).

The documents seized by police from Adani Enterprises Ltd's offices allowed police to calculate around 7.7 million tonnes of iron ore was illegally exported from the Port between 2006 and 2010 (Environmental Justice Australia 2015a).

In July 2014, the Competition Commission of India found Adani Gas Ltd guilty of using its position in the market to impose unfair conditions on gas customers. Adani Gas Ltd was ordered to modify its supply contracts and pay approximately \$4.8 million AUD (Environmental Justice Australia 2015a).

The Adani Group has been accused of using its stakeholders' connections with the Modi state government of Gujarat to secure land for the Mundra SEZ at a discounted rate from the market value (DNA India 2012).

The Adani Group was also reported to have colluded with the Gujarat state power authority to supply electricity at rates higher than those offered by competing electricity providers (Environmental Justice Australia 2017). The power authority prevented Adani's competitors from bidding for supply contracts (Environmental Justice Australia, 2017). While Gujarat suffered from power shortages, the power authority bought short-term power from the Adani Group at high prices and refused competitors' cheaper, long-term supply (Environmental Justice Australia 2015a).

In December 2014, a subsidiary of Adani Enterprises Ltd, Adani Mormugao Port Terminal Pvt Ltd, was issued a notice by the state pollution control board in relation to the Mormugao Port in the state of Goa (The Times of India 2014a). This notice required the Adani company to show cause as to why its 'consent to operate' should not be cancelled on the basis the state pollution control board had identified the company had failed to install air quality monitoring,

as required by law, and observed coal dust pollution caused by uncovered coal stockpiles and unutilised sprinkling and dry fogging systems (The Times of India 2014a).

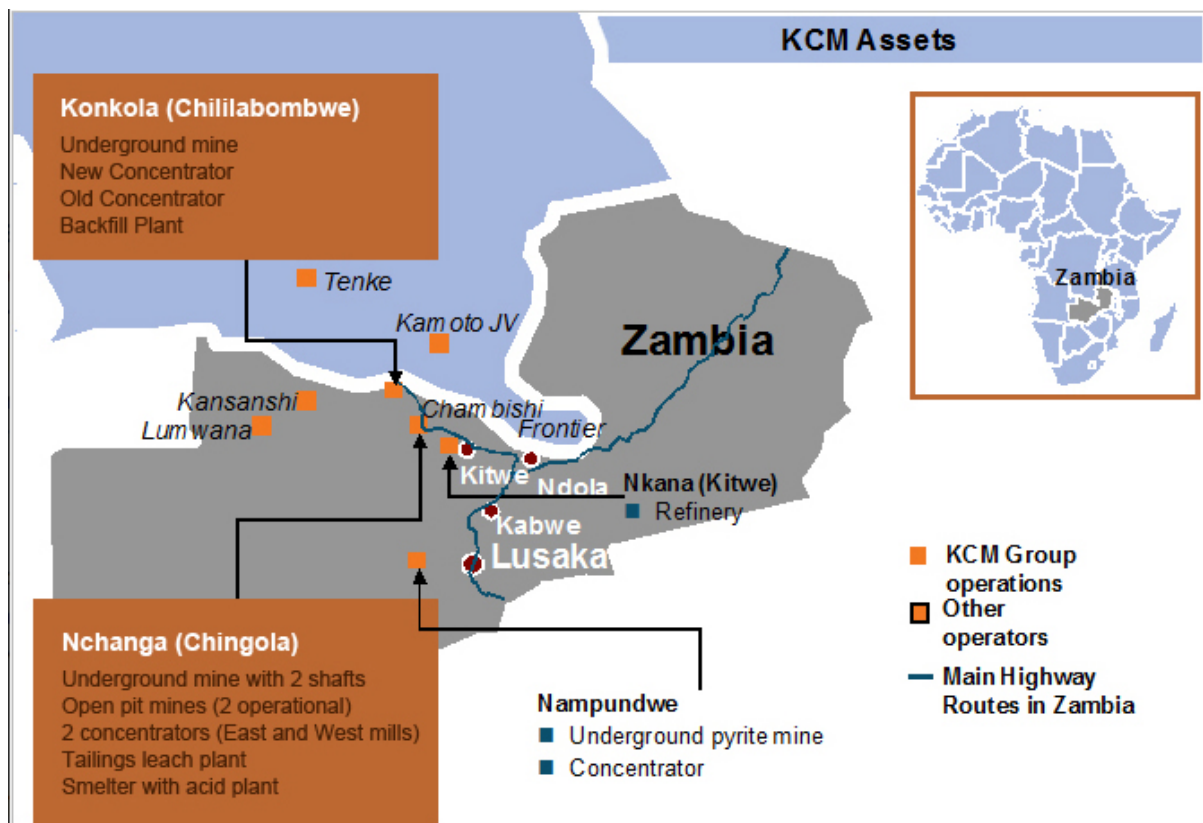
The Comptroller and Auditor General of India (CAG) has found instances of the Adani group receiving unfair tax benefits. In the 2013 financial year, for example, Adani Group allegedly obtained an approximately Rs 234 crore (approximately 4.6 million AUD) tax deduction that it was not entitled to. In another instance, Adani Exports was granted an illegal tax deduction of Rs 179 crore (approximately 3.5 million AUD). In both cases, the Adani companies had received excess exemptions by not claiming an accurate profit (The Times of India 2014b). The CAG brought these charges against Adani in its report on partnership firms, which was tabled in Parliament in 2014 (The Times of India 2014b). No legal actions have been taken against Adani for these matters.

Adani Australia CEO's record of environmental destruction in Zambia

In addition to the Adani Group's record of harm to the environment and communities in India, the chief executive officer of Adani Mining Pty Ltd in Australia, Jeyakumar Janakaraj, who would be overseeing the Carmichael Project in Queensland, was Director of Operations of a mining company in Zambia that committed environmental offenses during his tenure (Environmental Justice Australia 2015b).

Janakaraj was the Director of Operations and later CEO of Konkola Copper Mines (KCM) in Zambia from 2008 until he joined Adani Group in September 2013. KCM, a subsidiary of Vedanta Resources Plc, is one of Africa's largest copper producers, with mining operations in Zambia's Copperbelt and Central Provinces (Konkola Copper Mines plc n.d.).

Figure 3.6 KCM Assets



(Konkola Copper Mines plc n.d.)

Around the end of October 2011, KCM discharged a highly acidic, metal-laden water generated from leaching in copper mining into the Kafue River, the source of water relied upon by local communities for drinking, cooking, domestic use, fishing, and agricultural irrigation. The river changed colour (Mines and Communities, 2017). KCM not only failed to report the pollution, but first pled ignorance before later agreeing that the pollution came from the tailings leach plant (Environmental Justice Australia 2015b).

In November 2010, the Government of Zambia brought a criminal prosecution against KCM for the pollution of the Kafue River and the harm it caused (*The People v Konkola Copper Mines IC/232 2010*). KCM was charged with four offences:

‘Polluting the environment contrary to section 91(1) of the Environmental Protection and Pollution Control Act No. 12 of 1990 Cap 204 of the Laws of Zambia’;

‘Discharging poisonous, toxic, ecotoxic, obnoxious or obstructing matter, radiation or other pollutant into the aquatic environment contrary to sections 24 and 91(1) of the Environmental Protection and Pollution Control Act No. 12 of 1990 Cap 204 of the Laws of Zambia’;

‘[W]illfully failing to report an act or incident of pollution of the environment contrary to section 86 subsections (1) and (3) of the Environmental Protection and Pollution Control Act No. 12 of 1990 Cap 204 of the Laws of Zambia’; and

[F]ailure to comply with the requirements for discharge of effluent contrary to Regulation 12(b) of the Environmental Protection and Pollution Control [Water Pollution (Effluent and Wastewater)] Regulations Statutory Instrument No. 172 of 1993’ (*The People v Konkola*

Copper Mines 1C/232 2010).

KCM plead guilty to all charges and the Subordinate Court of the First Class for the Chingola District Holden at Chingola, Zambia imposed a monetary fine of KMZ 21.9 million (equivalent to approximately \$4000 USD) on the company. Nevertheless, KCM's pollution of the region continued.

A few months later, in January 2011, a newspaper reported that KCM was once again polluting the Kafue River (Lusaka Times 2011). In April 2015, the Supreme Court for Zambia agreed with the High Court for Zambia's 2011 decision that KCM was liable for polluting water in Chingola in 2006, which resulted in local residents getting sick (Environmental Justice Australia 2015b).

1,800 members of the local community also filed a lawsuit against KCM in the UK to recover damages for injuries that have resulted from the company's water pollution (Vidal 2015). The locals have claimed that people have become sick and died, the soil has become irreparably damaged and the water is no longer safe for consumption or use (Vidal 2015). Leaked reports have indicated that KCM has been discharging toxic chemicals into water sources in Zambia as their reservoirs have overflowed: 'The pollution control pond is handling too much material. No effort has been made to correct this scenario. Only one of four [waste] pipelines is running – the rest are in disrepair...The company has very good plans on paper that have not materialized on the ground for the last 10 years' (Vidal 2015).

In the case of KCM in Zambia, Jeyakumar Janakaraj had the responsibility of ensuring that his mine operated in compliance with local laws that serve the environment and communities. Australia recognises that environmental issues related to a company's stakeholders (and other companies those stakeholders have been in charge of) are relevant matters in considering a company's environmental history to determine whether that company should be allowed to operate in Australia (Environmental Justice Australia 2015b). The actions of KCM in Zambia under the executive director of Adani Australia along with the Adani Group's environmental record in India present a serious concern with Adani's ability to regard the environment and local communities of Queensland's Galilee Basin.

Non-compliance in Australia: The Abbot Point Stormwater Return Dam

Adani already has a record of environmental harm and non-compliance of Australian legislation. Adani Group's 'Construction Compliance Report,' prepared in order to meet a condition of the approval under the EPBC Act for Abbot Point Stormwater Return Dam finds a number of non-compliances with the EPBC Act approval, the Construction Environment Management Plan, and other sub-management plans (Adani Ports 2013). These include failing to comply with:

- Conditions in relation to marking and eradicating weeds and separating weeds prior to mulching;
- A condition to complete pest declarations for all earthmoving vehicles;
- A condition to wash down vehicles;
- Pest monitoring conditions;

- A condition regarding requirement for supplier certification that soils brought onto site are free of contaminants;
- A condition to maintain register of flammable liquids;
- A condition in relation to site inductions and induction about environmental objections and requirements; and
- The water quality monitoring plan (Environmental Justice Australia 2015a).

The Construction Compliance Report considered the impacts from the non-compliances to be ‘negligible’ (Adani Ports 2013).

Adani Mining Pty Ltd: a (non) suitable operator in Queensland

Under the *Environmental Protection Act 1994* (Qld), any company that intends on performing industrial activities such as mining must be registered as a ‘suitable operator’ in Queensland. The Act allows the chief executive of the Department of Environment and Heritage Protection (‘the Department’) to refuse, cancel, or suspend a company’s application for registration on the basis of the company’s previous environmental record (*Environmental Protection Act 1994* (Qld)).

Although the applicant is ‘Adani Mining Pty Ltd’, it is clear that this company is directly related to a group of companies that have a history of environmentally harmful activities. It is also possible that Adani Mining Pty Ltd’s executive officers could have served as executive officers of other Adani companies while those companies have committed events that would disqualify or cancel the registration under section 318K(a) of the *Environmental Protection Act 1994* (Qld) (Environmental Justice Australia, 2015a).

The analysis by the Queensland environmental regulator of Adani Mining Pty Ltd’s suitability to operate the Carmichael Project has not been thorough. Given the severity of the legal violations and environmental destruction in India and the gravity of the potential environmental impacts in Australia should Adani Mining Pty Ltd fail to comply with Australian environmental approvals, the company’s suitability should be reconsidered. In fact, the process for determining suitability to operate the Carmichael Project was itself marred with lack of public disclosure and loopholes and for this reason, it is investigated below.

A mining company wishing to operate in Queensland requires an environmental authority issued by the Department of Environment and Heritage Protection following an assessment process (Business Queensland, 2016). Adani Mining Pty Ltd however, did not go through this preliminary step. Instead, the company purchased its first environmental authority from another company in August 2010, just one week after Adani Mining Pty Ltd was incorporated in Australia (Environmental Justice Australia, 2015a). At the time of transfer, the Department was legally required to consider Adani Mining Pty Ltd’s suitability to hold an environmental authority in Queensland and its environmental record (*Environmental Protection Act 1994* (Qld)). Sections 540 and 540A of the *Environmental Protection Act 1994* (Qld) requires the Department to make environmental authorities public, however Adani’s original environmental authority is not publicly available, nor has the Department been able to locate it (*Environmental Protection Act 1994* (Qld); Environmental Justice Australia 2015a).

In August 2011, the type of environmental authority held by Adani Mining Pty Ltd was changed and in March 2012 the environmental authority number was changed by the Department, which cited administrative error for the change (Environmental Justice Australia

2015a). This suggests that over a period of two years, Adani Mining Pty Ltd's environmental authority had three different numbers. A report by the Queensland Auditor General in 2014 found that the Department is exposing the environment to unnecessary harm as the data being used to regulate industries that harm Queensland's environment is 'unreliable, hard to access, difficult to analyse; and often incapable of providing timely and quality information to inform decisions' (The State of Queensland Queensland Audit Office 2013).

In March 2013, the *Environmental Protection Act 1994 (Qld)* was amended with the *Environmental Protection (Greentape Reduction) and Other Legislation Amendment Act 2012 (Qld)* law, which required a company to be registered as a 'suitable operator' before the Department could grant it an environmental authority. The amending law, however, also allowed holders of existing environmental authorities to be registered as a 'suitable operator' (Environmental Justice Australia, 2015a). Adani Mining Pty Ltd was therefore automatically registered as a 'suitable operator' without having to disclose its environmental record and without the government investigating its suitability (Environmental Justice Australia 2015a).

Since its automatic register as a 'suitable operator', Adani Mining Pty Ltd has received four additional environmental authority permits without having its environmental record investigated by the Queensland Government. Although the confirming documents are not publicly available, the company's suitability to hold an environmental authority has only once been investigated by the Queensland Government in August 2010 – before Adani's environmental harm and breach of environmental regulations in India and elsewhere had occurred.

The Carmichael Project in Courts

In order for a 'significant mining project' to be approved in Queensland, a mining lease under the *Mineral Resources Act 1989 (Qld) (MRA)*; an environmental authority under the *Environmental Protection Act 1994 (Qld) (EPA)*; and an approval under the *Environmental Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)* must be obtained. Since these requirements involve both levels of government (state and federal), legal challenges to the Project have been heard in both jurisdictions, as outlined below.

Mackay Conservation Group v Commonwealth of Australia and Adani Mining [2015]: First approval under the EPBC Act; First judicial review challenge

When the Queensland Coordinator General classified the Project as a "significant project" under the *State Development and Public Works Organisation Act 1971 (Qld)* in 2010, an environmental impact statement (EIS) process was launched. The Carmichael Project's EIS was prepared by Adani between 2011 and 2013. It was then assessed under the MRA and EPA by the Queensland Coordinator General; and under the EPBC Act by the Commonwealth Environment Minister. The Project received its first green light from the Australian government in 2014 when Barry Broe, the Queensland Coordinator General and Greg Hunt, the Commonwealth Environment Minister at the time, both gave their recommendations for the approval of the mine. This approval was short-lived, however, as the Mackay Conservation Group, an environmental organisation that focuses its conservation and protection efforts on Central Queensland, led the challenge to the Commonwealth Environment Minister's approval of the Project under the EPBC Act in the Federal Court in Sydney.

This preliminary approval was set aside by consent by the Federal Court in August 2015, after the Minister agreed he had not properly considered the effect of the mine on two vulnerable species, the yakka skink and the ornamental snake (ABC 2015). Queensland Resources Council Chief Executive Michael Roche accused ‘anti-coal advocates’ of using ‘legal loopholes’ to delay a significant economic investment in Australia (ABC 2015). Attorney-General George Brandis called the lawsuit illegitimate, brought upon by groups that ‘have no legitimate interest other than to prosecute a political vendetta against development and bring massive developments ... to a standstill’ (Clark 2015). Brandeis proposed a change in section 487(2) of the EPBC Act in order to prevent ‘vigilante litigation’ and ‘lawfare by radical green groups’ (Clark 2015).

The section in question allows a ‘person aggrieved by the decision,’ including individuals or organisations who have engaged in ‘a series of activities related to the protection or conservation of, or research into, the environment’ to seek legal action and formed the basis of the grounds for the Mackay Conservation Group to initiate legal action against the Project. Brandis’ proposal was eventually shelved (Taylor 2016).

Environmental groups and the Greens saw the court’s decision as an opportunity to urge Adani to walk away from pursuing the Carmichael Mine, citing the legal uncertainty of the Project. Activists claimed the Minister could either refuse the mining project or he could decide to follow the proper legal procedures to re-approve the mine, after considering new evidence and information regarding the project (ABC 2015).

In October 2015, two months after the approval of the Project was overturned, the Project received its second green light with the Minister granting a second approval under the EPBC Act. This time, the approval came with what Minister Hunt referred to as ‘36 of the strictest conditions in Australian history’ (Hasham 2015). The conditions include the requiring of Adani Group to execute and submit a Groundwater Management and Monitoring Plan; a Matters of National Environmental Significance Management Plan; a Biodiversity Offset Strategy and biodiversity funding; a 3D Seismic Survey Management Plan; a Groundwater Flow Model Review; a Great Artesian Basin (GAB) Springs Research Plan; and a Rewan Formation Connectivity Research Plan before commencing excavation of the first box cut (Australian Government 2010).

Regarding the effect of the mine on the two vulnerable species, Minister Hunt instructed the Adani Group to “legally secure” the minimum offset areas within two years of commencement of each action (Australian Government 2010). In Queensland, only ‘significant residual impacts’ are required to be offset (*Environmental Offsets Act 2014*). Offsets are proposed only if the project proponent first proves that they cannot ‘avoid’ the impacts on the environment and, further, the impacts cannot be avoided or mitigated in a cost effective way. Mandating offset areas for endangered species is a common court prescription for legal cases brought by environmental groups, with court decisions suggesting offsets ‘counter-balance’ environmental impacts of a particular project (EDO QLD 2014). Some environmentalists view the prescription of offsets as a legal ‘last resort’ that allows for a project with proven significant environmental consequences to nevertheless proceed (EDO QLD 2014). Environmental offsets are discussed in greater detail, as a technique of neutralising and denying environmental harm, in Chapter Five.

*Australian Conservation Foundation Incorporated v Minister for the Environment [2016]
FCA 1042: Second approval under the EPBC Act; second judicial review challenge*

The second EPBC Act approval was challenged by the Australian Conservation Foundation (ACF) in the Federal Court of Brisbane before Justice Griffiths on 3 and 4 May 2016. As a judicial review application, the ACF argued that the Minister failed to properly consider the Carmichael Project's impacts of climate change pollution on the Great Barrier Reef.

A judicial review proceeding is more limited in scope than an appeal of merit. As a judicial review proceeding, the court's role in this case was limited to reviewing whether the Minister complied with his requirements before the law. The court was not able to evaluate whether or not the Minister's decision was correct based on the facts. Justice Griffiths addressed this distinction at the beginning of his decision:

It is important to emphasise at the outset the restricted character of this proceeding. On a judicial review application, the Court cannot step into the shoes of the Minister and decide for itself whether Adani's action should be approved and, if so, what conditions should apply. The Parliament has conferred that task and responsibility on the Minister and the Minister alone. This Court's function on a judicial review is significantly more limited, confined as it is to a review of the legality, and not the merits, of the Minister's decision. Ultimately, it is the Minister who must accept responsibility and be accountable for the merits of his decision.

The ACF argued Australia is obliged, under the World Heritage Convention, to ensure the protection of the Great Barrier Reef World Heritage Area. After the first decision to approve the mine was set aside by consent, the Minister of the Environment received new data regarding the impact of green house gases (GHGs) on the Great Barrier Reef. Part of this data revealed that at current global emissions, assuming no further growth in emissions, the global emissions budget that limits global temperature rises beneath 2 degrees Celsius would still be a very dangerous level of warming for the Reef. In order to limit the warming to beneath 2 degrees Celsius, no more than 850 billion tonnes of GHGs could be emitted globally after 2015 (ACF 2016). The Carmichael Mine is scheduled to produce 2.3 billion tonnes of coal over its 30 to 60-year lifetime. This figure amounts to 4.7 billion tonnes of greenhouse gases (GHGs) once the coal is burnt, or 0.6% of the carbon budget.

In giving the second approval, ACF argued that the Minister evaluated the new data in a manner that was at odds with the statutory scheme involving the exercise of the power to make the decision. Specifically:

(Ground 2) The Minister should have asked whether those consequences (listed in the new data) were considered '*relevant impacts*' within the meaning of sections 82 and 527E of the EPBC Act. Instead, he dismissed this information and applied a range of criteria not listed in the EPBC Act.

(Ground 3) The Minister should have taken into account the *precautionary principle* but instead relied on the Coordinator General's conclusion that there was sufficient scientific evidence to conclude that the Project would not result in threats of serious or irreversible damage to the Great Barrier Reef.

(Ground 1) The Minister should have but has not acted consistently with Australia's obligations under the World Heritage Convention, which would require him to quantify the impacts of GHGs on the Great Barrier Reef, take the precautionary principle into consideration when there is any scientific uncertainty, and consider what other measures might be used to avoid or repair the damage. (ACF 2016 italics added)

The Minister's submissions argued that while Section 527E of the EPBC Act defines an event or circumstance as an 'impact' of an action 'if the event or circumstance is a direct consequence of the action; or for an event or circumstance that is an indirect consequence of the action—subject to subsection 2, the action is a substantial cause of that event or circumstance', in this case, the 'physical effects' associated with climate change (increased ocean temperature and acidification) are not a direct impact of the proposed action (*EPBC Act 1999*; *Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042).

The Minister's submissions also claimed the Minister was not required to take measures or consider taking measures if he finds that a proposed action would not have any adverse effect on matters of national environmental significance. He had concluded that 'given the variables that would affect actual net emissions from transport by rail, shipping and combustion of the [Carmichael Project's] product coal, it would be mere speculation to find that the emissions would have any impact on matters of national environmental significance' (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042). The government's conceptualisation of carbon emissions, specifically 'net emissions' is discussed in subsequent chapters as an essential element used in the government's techniques of neutralisation and denial of environmental harm.

The Minister further argued the ACF mistook the scope of Australia's international obligations regarding the World Heritage Convention. It was argued that while Article 4 of the World Heritage Convention states that each state party has a 'duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage...', the Article cannot be interpreted literally. Article 4 should instead be interpreted in context, including in light of Article 5, which allows each state party to 'take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage' (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042). The Minister's submissions cited international law as set out in Article 31 of the *Vienna Convention on the Law of Treaties 1969*: that the general rule of treaty interpretation is a treaty shall be interpreted 'in good faith'.

Article 5 of the World Heritage Convention (along with Article 31 of the Vienna Convention) thus allows Australia a 'margin of appreciation' with regard to the measures it chooses to implement and comply with Article 4. This argument also suggests that the Minister did not act inconsistently with his obligations under the EPBC Act, which requires decisions to be made in accordance with Australia's obligations under the World Heritage Convention, because he concluded there would be 'no unacceptable impact on the world heritage values of the Great Barrier Reef' after considering the Project's GHG emissions (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042). For these reasons the Minister suggested the grounds advanced by the ACF should be rejected.

Adani also argued that the case should be dismissed for similar reasons. Adani stated the Minister *did* take into account the estimates of the Carmichael Project's GHG emissions. Further, when the Minister concluded that climate change is a significant threat to the Great Barrier Reef, he also concluded that the extent of the impacts of climate change to the Great Barrier Reef depends on how the rising levels of GHGs are addressed at a global level. Thus the potential impacts of climate change on the Reef are uncertain.

Adani's submissions stated the Minister concluded that the connection between combustion emissions and adverse impact on the Great Barrier were speculative because:

- combustion emissions are subject to variables including whether the coal from the mine will be burned in addition or instead of other coal;
- determining 'actual net emissions' was 'speculative';
- the future extent of climate change is uncertain and therefore it is not possible to conclude that these emissions will contribute to any increase in global temperature; and
- it is difficult to draw a causal relationship between the Project and matters of environmental significance in Queensland (Adani Mining 2016b).

Adani argued that despite these conclusions, the Minister did not disregard combustion emissions but instead considered how they might be addressed, i.e. through existing control frameworks within Australia and other countries that make up the import market for coal from the Project. This consideration, according to Adani's submissions, reflects the Minister's application of the precautionary principle and led to his conclusion that the Project will not have 'an unacceptable impact' on the Great Barrier Reef (Adani Mining 2016b).

This second application was dismissed by the Federal Court on 29 August 2016. Justice Griffiths stated:

In my view, [138] of the statement of reasons indicates that the Minister proceeded on the basis that the combustion emissions could not be regarded as a direct consequence of the proposed action. It is evident that the Minister then proceeded to determine whether or not the relevant events or circumstances flowing from the combustion emissions were the "impact" of the action within the meaning of s 527E. The Minister explained in [140] that the quantity of overseas gas emissions was subject to a range of variables and that, although it was possible to determine a possible gross quantity of such emissions that may occur (as set out in [136] of the statement of reasons), the range of variables relevant to such a determination meant that the quantity of actual net emissions was speculative at that time. Consequently, so the Minister found, it was not possible for him to draw firm conclusions as to the likely contribution of Adani's action to a specific increase in global temperature. This meant, in turn, that it was difficult to identify the necessary relationship between the taking of the action and any possible impacts on relevant environmental matters, including the Reef (*Australian Conservation Foundation Incorporated v Minister for the Environment (No 2) [2016] FCA 1095*).

After the decision was delivered, the Court ordered ACF to pay 70% of the Minister's costs and 40% of Adani's costs (*Australian Conservation Foundation Incorporated v Minister for the Environment (No 2) [2016] FCA 1095*). EDO QLD, on behalf of the ACF, appealed the decision to the Full Court of the Federal Court on 3 March 2017 (Australian Conservation

Foundation Incorporated v Minister for the Environment and Energy [2017] FCAFC 134). The appeal challenged the lawfulness of the Minister's finding that the burning of coal from the Carmichael mine will not have an impact on global warming and the Great Barrier Reef (EDO QLD, 2017). On 25 August 2017 the Federal Court dismissed the appeal.

Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors [2015] QLC 48:
Approval under the EPA

When the Queensland Coordinator General issued his recommendation for the Carmichael Project, it became advertised for objections under the MRA and EPA. The Land Services of Coast and Country Inc. (LSCC) objected the granting of the mine to the Land Court in Queensland from 31 March to 1 May, 2015.

LSCC argued the construction of the mine would not protect Queensland's environment while allowing for ecologically sustainable development, and therefore its approval contradicted the objective of Section 3 of the EPA. The approval of the mine, according to LSCC, also contradicted Section 5 of the EPA, which requires the administering authority and the Land Court to exercise its power under the Act in the way that best achieves the object of the Act. Furthermore, the LSCC believed that because the mining operation would not make appropriate use of the land (due to the adverse environmental impacts; the prejudice of the public's interest; and the lack of necessary finances for the project), the sections of the MRA that require the consideration of the current land use versus the proposed land use (Section 269(4)(c), (f), (i), (j), (k), (l), and (m)) also provide grounds for the Project's rejection (Land Services of Coast and Country 2014).

The conservation group referred to the principals of environmental policy set forth in the *Intergovernmental Agreement on the Environment* - the precautionary principle, the intergenerational equity principle, and the conservation of biological diversity and ecological integrity principle – as mandatory criteria that must be considered in the decision to approve the mining project. Together, these principles help assess the environmental harm of a project.

Section 14 of the EPA defines environmental harm as, 'any adverse effect, or potential adverse effect (whether temporary or permanent and of whatever magnitude, duration or frequency) on an environmental value, and includes environmental nuisance' and may be caused by an activity 'whether the harm is a direct or indirect result of the activity; or whether the harm results from the activity alone or from the combined efforts of the activity and other activities or factors (*EPA 1994*).

LSCC argued that the proposed mine's adverse environmental impacts on groundwater on the Doongmabulla Springs, the artesian springs complex surrounding the mining lease area, constitute an 'inappropriate use of the land when current land use does not pose a similar threat' (Land Services of Coast and Country 2014). The extent of the faulting of the Rewan Formation (the aquitard upon which the Carmichael Mine would be built) and, by extension, the environmental harm to the groundwater and dependent systems, was unknown due to the absence of seismic testing conducted in the area by the state or federal government. Adani had seismic testing and drilling for faults done on the proposed mining lease area by a hydrogeologist at a private consulting firm, which revealed faulting of ~300km through the Rewan Formation on the mining site. LSCC argued that it would therefore be logical to conclude there would also be faulting at the source of the springs, which are not far west of the

proposed mine (Land Services of Coast and Country 2014). If a fault beneath the Rewan Formation exists, the springs – a nationally important wetland – that have existed for tens of thousands of years would disappear overnight. LSCC claimed Adani's EIS did not provide a sufficient assessment of the environmental harm to surface water and its dependent users, species, and ecosystems. However, the adverse environmental impacts caused by the proposed mine on surface water 'by the creation of a permanent final void, alienating the land from current and future productive use' make it an inappropriate use of the land when current land use does not pose a similar threat, when considering Section 269(4)(m) of the MRA (Land Services of Coast and Country 2014).

LSCC referred to the possible extinction of the Black Throated Finch (BTF), citing the lack of information provided in Adani's EIS regarding the adverse environmental impacts to the biodiversity in the proposed area of mining. While it is known that the population of the BTF on the mine site is the largest population in the world, scientists do not know why the birds live directly on the mine site instead of on the surrounding areas. LSCC argued that in order to ensure the species' survival, its habitat must also be preserved (Land Services of Coast and Country 2014). The court case revealed that Adani's EIS downplayed the number of birds that lived on the site. Authorising environmental harm to biodiversity through the approval of the mine would be illegal under sections 437, 438, and 493A of the EPA and 269(4)(j) of the MRA (Department of Environment and Heritage Protection 2014).

Those referenced sections of the EPA and MRA also make it unlawful to authorise the environmental harm that would result from climate change and ocean acidification due to the operation of the mine. LSCC (2014) stated that it is the Land Court's duty in assessing the application for the approval of the mine to consider the amount of environmental harm, including the environmental harm from emissions of greenhouse gases from the transport and use of the coal which are a direct or indirect result of the mining activity; and the environmental harm from climate change and ocean acidification resulting from the combined effect of the mining activity and other activities and factors.

The mine is expected to produce 40-60 million tonnes of thermal coal per year; 0.6% of the carbon budget until 2050. The Australian government divides greenhouse gas emissions into Scope 1 & 2 emissions, GHGs that are released during the mining (i.e. from vehicles and various machinery used on-site), and Scope 3 emissions, GHGs that are released from the burning of the coal after the mining. Of the potential 4.7 billion tonnes of GHGs the Project will produce, approximately 98% are Scope 3 emissions, or result from the burning of the coal. However, Scope 3 emissions have generally been ignored by governments and mining companies. Adani's EIS did not include Scope 3 emissions; only focusing on the emissions associated with the process of mining. Since the emissions from not only the mining and transportation but also the use of the coal will increase the likelihood, severity and longevity of climate change with significant and long term adverse impacts on the environment, LSCC (2014) argued that the refusal of the mine is warranted under the combined effect of Sections 3, 14, 171, 191, 437, 438, 493A of the EPA and 269(4)(j) and (l) of the MRA (Department of Environment and Heritage Protection 2014).

The LSCC closed with a statement on public interest, arguing the adverse impacts, risks, and environmental harm the mine will cause to groundwater; surface water; biodiversity; and climate change and ocean acidification; along with economic and social matters collectively outweigh the purported benefits of the mine and justify refusal on the basis that it is against public interest (Land Services of Coast and Country 2014).

The Court delivered its decision on 15 December 2015. The President of the Land Court recommended that the mining lease be granted. In order to grant approval for the mine under the Environmental Protection and Biodiversity Act, research into the connectivity across the Rewan Formation three months prior to commencing excavation of the first box cut was ordered. However, the results of the research were not required; only a research plan needed to be submitted (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors* [2015] QLC 48).

The Court responded to the threatened extinction of the BTF by subjecting the approval of the mine to further conditions on the monitoring of the impacts on the BTF. These conditions include implementing offset areas for the birds into the mining plans, surveying of the BTF's breeding areas, monitoring of BTF movement across the project sites, and botanical assessments to record habitat values. 'If those conditions are included in the EA then I consider that the impact on the BTF will be lessened,' the Land Court declared (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors* 2015).

The Court ruled that the contribution of the mining project on climate change cannot be made; Scope 3 emissions are not relevant as the mine is exporting the coal overseas. The EPA granted the environmental authority for the mine on 2 February 2016. The mining lease was granted on 3 April 2016.

Land Services of Coast and Country Inc v Chief Executive, Department of Environment and Heritage Protection and Anor [2016]QSC 272: *judicial review of environmental authority*

LSCC appealed to the Supreme Court of Queensland. On 26 April 2016, an application for judicial review of the grant of environmental authority for the mine under the EPA was filed. Section 5 of the EPA states that there is an obligation to exercise a power under the Act in order to best achieve the object of the Act: ecologically sustainable development.

The following principles are principles of ecologically sustainable development, according to Section 3A of the EPA (1994):

- (a) decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations;
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- (c) the principle of inter generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making;
- (e) improved valuation, pricing and incentive mechanisms should be promoted.

The application for judicial review was originally based on the failure of the law to consider these sections of the EPA. However, when the Manager in the Environmental Services and Regulation Division of the Department of Environment and Heritage Protection stated that she was aware of Sections 3 and 5 at the time of her decision, the LSCC sought to append its application on the basis that the Manager had not acted in a way that fulfils her obligation to

section 5 of the EPA. This application was heard in the Supreme Court in Brisbane on 5 August 2015. It was dismissed on 25 October 2016.

Legal Objections by the Wangan and Jagalingou People

Part of the land on which the Adani Group plans to build and operate the Carmichael Mine belongs to the Wangan and Jagalingou People. The Wangan and Jagalingou People applied for their native title for the area in central Queensland in 2004. Their claim had been registered by the National Native Title Tribunal (NNTT) but a decision had not been made. Registration, however, allowed them the right to negotiate government decisions that affect their native title interests under the 'Future Acts' section of the *Native Title Act of 1993 (NTA)*. The Future Acts specifically references the grant of a mining tenement as an example of a future act (NNTT 2016a).

Adani had proposed to negotiate an Indigenous Land Use Agreement (ILUA), an agreement between native title groups and others concerning the use of land and waters (which can be regarding areas where the native title has not yet been determined), with the Wangan and Jagalingou People for the granting of the mining lease (NNTT 2016b). When the Wangan and Jagalingou People rejected the ILUA, Adani applied to the NNTT for a decision on the granting of the mining lease under the NTA. In 2013, the NNTT decided that it has jurisdiction in matters of an inquiry into a future act determination application (*Adani Mining Pty Ltd/ Jessie Diver & Ors on behalf of the Wangan and Jagalingou People/ State of Queensland [2013] NNTTA 30*). On 8 April 2015, the NNTT decided that the mine could proceed under the Futures Act section of the NTA (*Adani Mining Pty Ltd and Another v Adrian Burragubba, Patrick Malone and Irene White on behalf of the Wangan and Jagalingou People [2015] NNTTA 16*).

On April 16, 2016, a group of the traditional owners met with representatives of Adani Group. The outcome of this meeting, according to Adani, was that a majority of the 12-person native title applicant group voted to authorize an ILUA for the construction of the mine (The Australian 2016). It was later revealed through an investigation by Guardian Australia that the seven representatives of the Wangan and Jagalingou People who attended this meeting were pocketed 'sitting fees' of at least \$10,500 and were offered \$550,000 to authorize the ILUA (Robertson 2016b). An Adani spokesperson rejected these allegations. The seven representatives would not release any information regarding the meeting but, according to Barrister Dan O'Gorman, since those people had negotiated with Adani Group on behalf of the larger group of native title claimers, the larger group is entitled to know 'whether any inducements were offered to these people to come at the recommendation that they're providing' (Robertson 2016b).

Both the Queensland government and Adani have interests in the seeing the authorization of the ILUA by the traditional land owners. Without the ILUA, the land would have to be forcibly taken by the government for Adani's mining leases. An authorization would also make it easier for Adani to approach banks to finance the Carmichael Project. Most major banks support equator principles, which allow for the backing of resource projects as long as the project has received traditional owner consent (Robertson 2016b).

Adrian Burragubba, representing the Wangan and Jagalingou People, appealed the NNTT's determination to the Federal Court on the grounds that they did not consider the Wangan and Jagalingou families' submission of court documents claiming that Adani acted in bad faith by overestimating the economic benefits of the Carmichael mine. Burragabba stated:

The native title system isn't what people think it is. There's inherent bias in the system where companies know if they get a "no" they can go to the tribunal and are virtually guaranteed to get their mining lease. Hopefully this case will ventilate the issues around free prior and informed consent and the native title system (Milman 2015).

The Federal Court dismissed the application on August 2016 (*Burragebba v State of Queensland* [2016] FCA 984). Justice John Reeves concluded that the tribunal did not fail to exercise its jurisdiction (Kos 2016). Burragebba said that the Wangan and Jagalingou People would continue to fight the mine, lodging an appeal to the full bench of the Federal Court in the beginning of September 2016. The appeal challenged the decision by Justice Reeves, arguing that he should have found Adani 'misled' the NNTT on matters of jobs and economic benefits created by the mine. The case was heard on 2 November 2016 (Robertson 2016c). The appeal of the Federal Court's decision was dismissed by the Full Federal Court on 25 August 2017 (*Burragebba v State of Queensland* [2017] FCAFC 133).

The Wangan and Jagalingou People also applied for judicial review of the grant of the mining lease under the MRA based on native title grounds in the Supreme Court of Queensland. This application was dismissed on 25 November 2016 (*Burragebba & Anor v Minister for Natural Resources and Mines & Anor* [2016] QSC 273). A subsequent appeal in the Queensland Court of Appeal was also dismissed, on 22 August 2017 (*Burragebba v Minister for Natural Resources and Mines* [2017] QCA 179).

In 2018, the Burragebba and four other Wangan and Jagalingou leaders brought a case to the Federal Court to ask for relief from personal and collective liability to the legal costs of their losing cases (*Kemppi v Adani Mining Pty Ltd (No 5)* [2018] FCA 2104 (QUD 197 of 2017)). The ruling, issued on 21 December 2018, found that the applicants were required to pay legal costs. Eight days later, Adani presented the court with a petition seeking payment of \$637,960.32 in legal costs accumulated in defending the Wangan and Jagalingou People's failed cases (Stevens 2019).

Litigation against Abbot Point

Four cases have been brought against the expansion of the Abbot Point Coal Terminal. Expanding the port is a necessary component of the Project, as it would allow the export of the large increase in coal production associated with the Carmichael Mine.

The first case (*North Queensland Conservation Council v Minister for the Environment & Ors* [AAT2014/1043]) was filed on 27 February 2014 in the Administrative Appeals Tribunal (AAT) by the North Queensland Conservation Council (NQCC), represented by the Environmental Defenders Office Queensland (EDO QLD). The case challenged a permit that was granted to North Queensland Bulk Ports Corporation (NQBP) under the *Great Barrier Reef Marine Park Act 1975 (Cth)* for dredge spoil disposal in the Great Barrier Reef Marine Park.

In particular, NQCC contends the decision is inconsistent with the London Protocol, an international agreement which includes the obligation to prevent, reduce and where practicable eliminate pollution caused by sea dumping. It also establishes an assessment regime for sea dumping permit applications (EDO QLD 2014).

The hearing did not proceed. On 26 June 2015 the AAT ordered the cancellation of the permit by consent of the parties because on 2 June 2015, regulation 88RA of the Great Barrier Reef Marine Park Regulations 1983 was placed into effect, banning the dumping of capital dredge spoil in the Great Barrier Reef Marine Park. This made NQBP's sea dumping permit redundant, thus closing the case (EDO QLD 2014).

The second case was brought on 24 March 2014 by the Mackay Conservation Group, represented by EDO QLD, in the Federal Court of Australia in Queensland (*Mackay Conservation Group v Minister for the Environment* [QUD118/2014]). The environmental group sought judicial review of the EPBC Act for approval of dredging and disposal of the dredge spoil in the Great Barrier Reef Marine Park. On 4 November 2015 the case was dismissed, for the same reason as the NQCC case (EDO QLD 2015a).

The third case was heard in early 2015 to the Federal Court by the Alliance to Save Hinchinbrook (ASH) conservation group. As a judicial review case, the group challenged the decision under the EPBC Act to fast-track the assessment of a proposal for the dredge spoil disposal in the Caley Valley Wetlands. ASH, also represented by EDO QLD, alleged errors of law in Minister Hunt's decision to allow assessment by preliminary documents rather than via a more thorough process, and in allowing a shorter public consultation period (EDO QLD 2015b). The Queensland Government withdrew its application for this proposal on 12 March 2015, ending the case, after the Queensland Government officially announced its plan not to dump dredge spoil on the Caley Valley wetlands (EDO QLD 2015b).

The fourth case, brought by the Whitsunday Residents Against Dumping conservation group in the Queensland Supreme Court on 7 October 2016 challenged the legality of the Queensland Government's decision to approve an environmental authority under the EPA for the Abbot Point coal terminal expansion. The application was dismissed on 15 June 2017 (*Whitsunday Residents Against Dumping Ltd v Chief Executive, Department of Environment and Heritage Protection & Anor* [2017] QSC 121).

In mid-2018, it was revealed that Adani and the Queensland Government sought to hide details about the pollution of coal-laden water into the Great Barrier Reef at Abbot Point (Slezak 2018). Documents uncovered using freedom of information laws showed that Adani applied for an extension to its temporary pollution licence ahead of Cyclone Debbie in 2017. In communication with the Queensland Environmental Department, Adani revealed the water it would spill contained 900mg of coal per litre, despite applying for a licence to spill water with 100mg per litre (Slezak 2018). Facing pressure from environmental protesters, who argued the Queensland Government was notified of the extreme pollution and allowed it to occur anyway, the Queensland Government decided to prosecute Adani for the breach of its pollution licence and issued a \$12,000 fine (Swanston 2017). Adani appealed this fine, 'categorically refuting' any wrongdoing and submitted a report regarding the nature of the spill (Ludlow 2018). Reporters for the Guardian (Remeikis and Slezak 2018) wrote an article regarding this investigation:

It's believed [Department of Environment] officers noticed a difference between documents provided by Adani through its Abbot Point Bulkcoal operation and those obtained directly from the laboratory responsible for testing the level of coal contamination in discharge water.... the original report found worse pollution than had earlier been alleged.

Adani could face fines up to \$2.7 million if found guilty of breaching its licence (Horn 2018).

Funding the Carmichael Project

On 3 April 2016, Minister for Natural Resources and Mines Anthony Lynham approved three Adani mining leases: 70441 Carmichael, 70505 Carmichael East, and 70506 Carmichael North. The leases are worth \$21.7 billion and are estimated to contain 11 billion tons of thermal coal (Mitchell-Whittington 2016). A representative for Adani stated that the approval grants the company certainty as it seeks to move on to the next phase of the project (Mitchell-Whittington, 2016). Both the government and Adani Group stressed the strict nature of the 200 conditions attached to the mining lease. Queensland Premier Annastacia Palaszczuk said that these imposed conditions would continue to protect the environment, traditional owners' interests and the Great Barrier Reef. Following the approval of the mining leases, Adani Group stated that it aims to start work in 2017 (ABC 2016). However, Adani has had difficulty in securing funding for the Carmichael Project. The timeline surrounding applications, approvals, and rejections for funding the Project involves members of the Australian Government, Adani representatives, banks, and countries.

Banks

In September 2015, before the mining leases for the Carmichael Project were approved, National Australia Bank (NAB) ruled out lending to the Carmichael Project. Cameron Clyne, the former NAB chief executive stated that the bank's ruling out involvement with the Project seemed "proper" and "prudent" for shareholders. December 2016, Australia New Zealand Banking Group (ANZ) joined NAB in ruling out financing the Adani Carmichael Project, citing its 2016 corporate sustainability review, which addressed the need to move away from coal. Shayne Elliott, ANZ's chief executive, claimed:

Our customers mining for coal, oil and gas, as well as those in coal-fired electricity generation, and related industries, are increasingly exposed and may experience transition risk as a result of decreasing demand for fossil fuels and increasing demand for clean energy. We encourage customers in these sectors to plan for, and start making, the necessary changes for climate adaptation (Hunt 2016).

Then in April 2017 Westpac, Australia's second-largest bank, also decided against funding Adani's Carmichael Project. At the same time, the bank released its new climate policy that limits its lending for new thermal coal projects to 'only existing coal producing basins' and increased its lending target for 'climate change solutions' from \$6.3bn to \$10bn by 2020 and \$25bn by 2030. Westpac CEO Brian Hartzer stated:

Westpac recognises that climate change is an economic issue as well as an environmental issue, and banks have an important role to play in assisting the Australian economy to transition to a net zero emissions economy," Hartzer said. "Limiting global warming will require a collaborative effort as we transition to lower-emissions sectors, while also taking steps to help the economy and our communities become more resilient (Robertson 2017a).

The bank cited 'community pressure' as indication that people want to stop the 'climate disaster in its tracks and that Adani and our government ignore them at their peril' (Robertson 2017a).

An Adani spokesman said that the company would not abandon the Project despite Australian banks' withdrawal, claiming that the financial houses have instead chosen to 'bow to environmental activists' (Robertson 2017a).

The last bank to withdraw its support from the Carmichael Project was the Commonwealth Bank. While Commonwealth Bank had previously ended its role as a financial advisor of the Project, it was not until August 2017 that the bank affirmed it would also not be financing it (Slezak 2017b). The bank's decision meant that Adani's Project would not be funded by any of Australia's big four banks. The Chief Executive of 350.org Australia, Blair Palese, stated that Commonwealth Bank's decision was 'a huge win for the two and a half years campaigning...[with] thousands of protests at Commbank branches around the country' (Slezak 2017b). A spokesman for Adani claimed that Adani had never approached Westpac, Commonwealth, ANZ or NAB and that financing arrangements 'have been and continue to be, with international financial institutions' (Slezak 2017b).

In October 2017, two months after the big four banks decided not to finance the Carmichael Project, Frances Adamson, the secretary of the Department of Foreign Affairs and Trade, claimed that Adani may have requested that the Australian government send a formal letter to the National Development and Reform Commission in China to confirm that the Carmichael Project has passed all of Australia's necessary environmental approvals, in order to help Adani secure funding from the Chinese government (Hutchens, 2017). This letter was alleged by Adamson to have been signed by Steve Ciobo, the minister for trade, and Barnaby Joyce, the deputy prime minister. Attorney general George Brandis said he did not know whether the letter was sent at Adani's request but that the government sent the letter in order to dismiss the 'misinformation campaign of those from the radical left' (Hutchens 2017). Adamson told Senate:

My interpretation of what would have happened is the Adani company will have themselves been assessing how they can fund the project [and] in the course of that assessment they've looked at a range of different sources and I think what they did was request a statement of fact...where the project is up to, and a statement of endorsement, or support... from the Australian government which the Australian government, given its support for the project, ministers were happy to provide (Hutchens 2017).

In January 2017, the China Machinery Engineering Corporation (CMEC) released a public statement announcing its president had met with Adani representatives and Australian mining construction company Downer EDI. CMEC's involvement as a contractor and financier of the Carmichael Project would allow the Project to attain funding from the state-owned China Construction Bank and Export-Import Bank of China (Slezak 2017c). However, according to Tim Buckley from the Institute for Energy Economics and Financial Analysis, if these banks were to get involved, the loans would 'almost certainly' have requirements for jobs to be generated in China (Slezak 2017c).

NAIF

At the end of 2016, the Courier Mail reported the rail connecting the Carmichael Mine and the coastal point of Abbot Point was 'one step closer to being funded by the Federal Government' through the Northern Australia Infrastructure Facility (NAIF), which has given the \$2.2 billion project 'conditional approval' (Viellaris 2016).

The NAIF was created by Senator Matt Canavan – a vocal Adani supporter – in 2016. According to the Australian Department of Industry, Innovation and Science, the NAIF is supported by the Export Finance and Insurance Corporation (EFIC), Australia’s export credit agency and designed to provide up to \$5 billion over five years in concessional finance for infrastructure projects in the northern states and Northern Territory (Northern Australia Infrastructure Facility 2018.; Gogarty 2017).

The NAIF Board has so far only offered three small-scale Financing Mechanisms to projects in northern Australia: In September 2017 the NAIF Board offered the Onslow Marine Support Base in Western Australia up to \$16.8m to ‘provide supply and support services for onshore and offshore businesses such as logistics, fuel suppliers, waste management, and construction and maintenance companies in the Carnarvon Basin (NAIF 2018). In May 2018, the NAIF Board offered Humpty Doo Barramundi Pty Ltd up to \$7.18m for the company’s first stage of expansion of its barramundi farm in the Northern Territory, including the building of a solar farm, medium fish nursery, and processing equipment (NAIF 2018). Most recently, in June 2018, the NAIF Board granted Genex Power \$516m in concessional finance for its solar and pumped hydro storage project in the former Kidston gold mine in north Queensland (Parkinson 2018).

Using taxpayer funds to support a foreign-owned coal company’s mining project became a major target of environmental campaigns during the Queensland election in November 2017. It was found that Shaun Drabsch, Queensland Premier Anastacia Palaszczuk’s partner, worked on Adani’s application to NAIF with his employer, PricewaterhouseCoopers (Gregory 2017). Further conflicts of interest involving NAIF were uncovered by Environmental Justice Australia. Two board members have connections to mining companies that would benefit from the approval of the Adani mine: Annabelle Chaplain was a board member of EFIC and also a director of Downer EDI, which had a \$2 billion commercial agreement with Adani for the drilling, blasting, and coal haulage at the Carmichael Mine. Karla Way-McPhail was a NAIF board member and chief executive of two companies that are involved with the mining industry; Undamine Industries, which hires out labour and machinery for mining operations, and Coal Train Australia, a mining company based in central Queensland. (Willacy and Blucher 2017) EFIC and NAIF both released statements that said its directors are aware of their obligations regarding disclosure of conflicts of interest but did not comment on whether or not Chaplain or Way-McPhail would recuse themselves from decisions regarding Adani. NAIF rejected ABC’s Freedom of Information request for the dates and locations of its board meetings, with the chief executive claiming that the release of this information would adversely affect NAIF’s operations by creating media attention and protest activity (Willacy and Blucher 2017). EFIC board secretary, John Hopkins, stated that no EFIC directors had any need to recuse themselves from EFIC’s discussions concerning NAIF since the EFIC Board “was not required to have, nor does it have, any actual knowledge of the projects NAIF is considering” (Robertson 2017c). Hopkins’ claim that EFIC is a “service provider,” not the “decision maker” on “specific transactions” made by the NAIF board (Robertson 2017c).

Palaszczuk, who had previously supported the Carmichael Project, promised to veto a NAIF loan to Adani after facing increasing pressures during the November 2017 election campaign. She claimed that she wanted to continue her government’s legacy of having ‘no role to date in the federal government’s NAIF Loan Assessment Process for Adani’ and no ‘role in the future’ (Gogarty 2017).

In order to actively stop NAIF from funding the Carmichael Project, Palaszczuk would need to write a formal statement to NAIF refusing the loan – not a letter to the Prime Minister, as Palaszczuk claimed. Yet a “Master Facility Agreement” that has been set up between Queensland and NAIF allows the treasurer of Queensland to pass the money to Adani without the money going into the state’s bank accounts. This agreement suggests that while Palaszczuk can say that her government will not assist Adani, the Queensland opposition must also agree to a veto because Palaszczuk cannot actively block the loan herself (Gogarty 2017).

Following Queensland election and Premier Anastacia Palaszczuk’s veto of the NAIF loan for Adani and facing pressure from environmental campaigns, Downer EDI and Adani cancelled their contract (Robertson, 2017b). This split has threatened Adani’s operation, as Downer EDI was one of two mine contractors considered capable of handling an operation of the Carmichael Project’s scale. At the same time, the Chinese embassy stated that Adani’s Carmichael Project would not be funded by Chinese banks. Julien Vincent, from the financial activist group Market Forces suggested that the Project could have run out of ‘credible options for funding’ (Slezak 2017d). Without being able to start the Carmichael Mine, Adani’s Abbot Point coal terminal was also threatened. The terminal was not being fully utilised and needed the coal from the Carmichael mine to maintain its viability.

After the Premier of Queensland’s veto and the split from Downer, Adani said it decided to ‘develop and operate the mine on an owner operator basis’ (Robertson 2017b). Ben Pennings, spokesman for the Galilee Blockade, an environmental organisation that seeks to stop the mining of the Galilee Basin, stated that Downer’s departure marked the biggest ‘nail in the coffin’ for the Carmichael Project yet. Pennings claimed investors are becoming aware of the scale of Adani’s project, which would take years and poses significant risks for investors (Robertson, 2017b). Minister for Northern Australia, Matthew Canavan, who is responsible for the legislation, supports the Carmichael Project and had influence over the White Paper that detailed the terms of eligibility for NAIF loans, had ‘looked into the NAIF legislation to see whether there was a way to pay a loan to Adani without state government support but the veto by state and territory governments was specifically written into the legislation’ (Ludlow 2017).

Self funding

In November 2018, Adani Australia’s mining chief, Lucas Dow, stated that it could finance a ‘smaller open-cut mine comparable in size to many other Queensland coalmines’ itself (Smee 2018a). This ‘scaled down’ version of the mine would produce 27 million tonnes of coal per year, instead of the 60 million in the original plans and only require an investment of \$2 billion (Hepburn 2018).

Despite this announcement, construction cannot legally begin until the groundwater-dependent ecosystem management plan (GDMP), involving identifying the source of the Doongmabulla Springs, is approved by the Queensland Government and the federal Department of Environment and Energy (which will receive independent scientific review from CSIRO and Geoscience Australia) (Smee 2018a). Adani also needs to obtain approval for the management plan for the black-throated finch before it is allowed to commence work on the Carmichael Mine as well as negotiate access to the rail network needed to transport the coal from the mine to Abbot Point. The railway also requires upgrades, and, at the time of Adani’s announcement, it remains unclear who will pay for its construction. Lastly, Adani has not signed a royalties package with the Queensland Government. Smee (2018a) writes, ‘questions remain about whether Adani can meet the terms of state government’s royalties framework that would allow

such a deal...which analysts estimate would be worth \$315m to the company in deferred payments'. These unresolved issues suggest that Adani's building of the Carmichael Mine will not occur as soon as the announcement to self-fund suggests.

Conclusion

If Adani's Carmichael Project were a country, it would be the seventh largest polluter in the world. Yet the Carmichael Project has been able to receive multiple approvals from the Queensland and Australian federal governments regardless of the impacts it will have on land, water, biodiversity, and climate change. Adani's history of corner-cutting, environmental destruction, and non-compliance of environmental legislation has not stopped the company from being deemed an unsuitable operator in Queensland and Australia.

This chapter has summarised the major timelines surrounding the Carmichael Project, including the history of Adani; the company's purchase of the Galilee Basin coal reserves and proposals for the Project; the legal cases that have attempted to stop Adani; and the history of environmental and social harms that have resulted from the company's various activities around the globe. The next chapter discusses 'what's at stake', or the harms to land, water, air and the ecosystem of the Great Barrier Reef that would result from the operation of the Carmichael Project.

Chapter Four

THE HARMS

“Of note is the consistent use of the preface ‘illegal’ in the listed activities constituting environmental crime, a preface not regularly employed when describing other categories of crime” (Bricknell 2010: 4).

“[T]hroughout the approval process and design of operating conditions, large uncertainties remained unresolved regarding the conceptual hydrogeological model and numerical model for the mine” (Currell et al. 2017: 675).

“All emissions from the burning of product coal from this Mine will have a climate impact in the physical cause-effect sense” (Taylor and Meinshausen 2014).

Introduction

The Carmichael Project has been awarded approvals by the Queensland and federal governments at a time when 71% of the population agree that Australia should be the world leader in climate change action (World Wildlife Foundation Australia 2018: 7). Scientists have been able to map and predict the environmental damage, including the contribution to climate change, that the Carmichael Mine and Rail Project would cause if it is allowed to operate according to Adani and the governments' plans. The native owners of the land, the Wangan and Jagalingou People, have also voiced their concerns about the Project's environmental – and social – harms. This chapter presents a summary of the Carmichael Project's harms. Through a green criminological perspective, 'issues relating to the environment (in the widest sense possible) and social harm (as defined in ecological as well as strictly legal terms)' are focused on, 'extending the definition of environmental harm to those actions which degrade the environment but are not legally defined as criminal' (White and Heckenberg 2014: 1).

Since 'ecocide' can be understood as 'the extensive damage to, destruction of or loss of ecosystem(s) of a given territory to such an extent that peaceful enjoyment by the inhabitants of that territory has been or will be severely diminished,' corporations and states whose actions cause such damage can be found to have committed an act of ecocide (Higgins 2010). Beginning with a theorisation of environmental harm this chapter will demonstrate that the building and operating of the Carmichael Project as per the request of the Adani Corporation (and as approved by the Queensland and Federal governments), will have potentially ecocidal impacts on land, water, air, climate change, and the specific ecosystem of the Great Barrier Reef.

All of the harms described have been identified and substantiated by independent committees and published in reports. Some of the harms have even been confirmed by Adani. This chapter details what is at stake, for our climate, local Australians, and the global community with the approval of the Carmichael Project. The seriousness of these harms, along with the deliberate denial of them (which will be discussed in the upcoming two chapters) forms the basis for the argument that state's approval of the mine can be understood as a potential conspiracy to commit the crime of ecocide.

Conceptualising Environmental Harm

According to White (2014a), environmental harm can be conceptualised through a legal, ecological, or eco-justice perspective. Legal conceptions of environmental harm are informed by laws and rules at the local, state, federal, and international levels. Environmental activities (from illegal waste disposal to environmental protests) perpetrated by corporations, states, activists, and private citizens are labelled as either 'legal' or 'illegal' based on the legislation of a jurisdiction. Bricknell (2010:4) articulates a contradiction in legal conceptions of environmental harm:

Of note is the consistent use of the preface 'illegal' in the listed activities constituting environmental crime, a preface not regularly employed when describing other categories of crime. This reflects the fact that some component or level of these activities is still condoned and that it only becomes illegal once a set boundary has been passed. The tipping point of illegality contrasts environmental crimes with other established criminal offences.

The ‘wrongdoing’ studied within green criminology is thus initially informed by legal conceptions and constructions of crime and harm and later moves to a broader view of environmental harm (White and Heckenberg 2014). For this study, Australia’s legislation on subjects such as mining permits, land use agreements, carbon emissions, endangered species, sustainable development, and corporations are analysed to identify the way in which the state divides environmental activities into ‘legal’ or ‘illegal’ categories. As Sutherland (1949) observed, research of the crimes of the powerful is difficult without a willingness to move beyond legal definitions of crime. Studying a resource extraction project as a potentially criminal activity – the crime being ecocide – requires a broader view of crime than the one that is currently prescribed by the state. While coal mining is not inherently illegal according to the laws of Australia, the proposals for the Carmichael Project’s involve allowing certain environmental harms that would affect the land, atmosphere, and water at a local and global level. These harms include:

- The selling of Indigenous lands for the mining permit without the approval of the Native People of the land;
- The reallocation of fertile cropping lands for mining, ending the possibility for future farming on the land;
- Unlimited access to underground water reserves of which the local ecosystems rely;
- Harm to the local farmers who rely on this water and cropland for their livelihood;
- Harm to the species who live on the Carmichael Project’s site, including endangered and vulnerable;
- Contributing to the increase in atmospheric CO₂, which results in climate change;
- Harm to the Great Barrier Reef caused by the rise in global temperature and ocean acidification;
- Harm to the Great Barrier Reef from the shipping vessels used to transport coal to India and dredge spoil from the mining and transportation process;
- Harms to the world’s poor and those living in impoverished nations who are most immediately affected by climate change; and
- Harm to future generations as a result of global warming affecting the security of food and other conditions that allow for a peaceful enjoyment of life.

This list is not exhaustive, but it exemplifies how the harms caused by the Carmichael Project affect both human and non-human victims, both immediately and long-term. For these reasons, this thesis considers the *harm* resulting from a ‘technically legal according to the law’ project. Ecological conceptions of harm are informed by the interrelationship and connectivity between species and the environment, using the concept of ecological sustainability to divide activities into nonthreatening or destructive (White 2008). Ecological conceptions of harm move beyond legally informed harms but it is the eco-justice perspective, which conceptualises harm as informed by notions of egalitarian rights for human and non-human species and the environment, that is utilised in this study (White 2008). The eco-justice approach to harm is described by Heckenberg as (2009: 13):

an approach to the conceptualisation of harm within green criminology that refers to the distribution of environments among peoples in terms of access to and use of specific natural resources in defined geographical areas and the impacts of particular social practices and environmental hazards on specific populations (e.g. as defined on the basis of class, occupation, gender, age, ethnicity). The concern is

with human [and non-human] health and wellbeing and how these are affected by particular types of production and consumption.

Environmental harms can be categorised in terms of ‘green’, ‘brown’ and ‘white’ types of crime (White 2008; White and Heckenberg 2014). ‘Green’ issues have to do with conservation of wilderness such as habitat destruction; depletion of the ozone layer; and water pollution. ‘Brown’ issues relate to urban life and pollution such as air pollution; oil spills, or disposal of hazardous waste. ‘White’ issues refer to the impact of science and new technologies such as genetically modified organisms and animal testing and experimentation. Environmental harms can also be classified according to the four elements, as air crimes, water crimes, land crimes and energy crimes.

Environmental harms can also be conceptualised according to their locale (White 2011). Environmental harms commonly occur at the local level. For example, it has been discovered that most residents of Flint, Michigan in the United States have been living without access to safe and clean drinking water. Harms can also occur at a national level when specific states dealing with particular environmental problems. An example of a national environmental harm was the ecological impact of the oil tar-sands projects in Alberta, Canada. Of course, environmental harms can also be region-specific, as evidenced by the logging of the Amazon rainforest, which spans multiple countries. Lastly, environmental harm can be global or transnational. Global warming is perhaps the most prominent example of an environmental disaster that does not adhere to borders (although it affects some spaces earlier and more drastically than others). Critical criminology arises from the understanding that what happens on a local level is important to and has effect on what happens on the other side of the planet.

Most environmental harm is intrinsically transnational since it is mobile and transferable by nature, as exemplified by air pollution. Transnational environmental crime includes unauthorised acts or omissions that are against the law and therefore subject to criminal prosecution and sanctions; crimes that involve some kind of cross-border transference and an international dimension; and crimes related to pollution (e.g. of air, water and land) and crimes against wildlife (e.g. illegal wildlife trade) (White 2011). National and international laws relating to the environment focus on these areas. For example, Interpol has working groups on fisheries crime, forestry crime, pollution crime and wildlife crime (White 2011).

Harms to Land

Ahead of the G7 meeting in Italy in 2017, NATO lawmakers warned that climate change will worsen the long-term prospects for food and water security around the globe (UN 2017). The report states that while the global demand for renewable water supply and land for agriculture will increase, climate change will create hotter, drier conditions that will disproportionately affect the Middle East and North Africa’s food and water supply, consequentially contributing to the refugee crisis as people move from regions that will no longer be able to support life. The warning also emphasises the importance of governing land for agricultural use.

According to the Department of Agriculture and Resources, Queensland’s land is primarily used for grazing and cropping; less than 5% of land in Queensland is in national park; and less than 7% is in any type of conservation reserve (The Australian Government 2017b). These figures put Queensland’s national park coverage to the bottom 30% of countries globally (Hockings et al. 2013).

Queensland has the largest area of agricultural land of any Australian state and the highest proportion of land area dedicated to agriculture – 152 million hectares or 88.4% of the total land area (The State of Queensland Department of Agriculture and Fisheries 2018). In 2015-2016 this land supported approximately 24,200 farm businesses (Australian Bureau of Statistics 2017a). Besides the large-scale food production that takes place on Queensland's agricultural land, the agricultural sector has also contributed through the employment of approximately 53,000 people in 2017 (Australian Bureau of Statistics 2017b) and contributed an estimated \$20 billion to the Queensland economy (The State of Queensland Department of Agriculture and Fisheries 2017). Queensland's population of nearly 5 million people – less than 0.1% of the world's population – produces 0.4% of the world's food supply and nearly 1% of the world's agricultural exports, from 1% of the world's total land area (The State of Queensland Department of Agriculture and Fisheries 2018).

However, the land currently used for the agricultural sector is threatened by a growing demand for non-agricultural land use. Between 2009 and 2014, for example, 120 Mining Lease applications were lodged, spanning an area of about 600,000 hectares of agricultural land (Lock the Gate Alliance 2014). The mining activities and rail infrastructure of the Carmichael Project specifically threatens the Galilee Basin State Development Area (GBDSA), a section of fertile cropping land in Queensland.

The governing of Queensland's crop land

The Galilee Basin State Development Area (GBDSA) extends over 2 million hectares of land that is considered "Good Quality Agricultural Land" (GQAL). The State of Queensland defines GQAL as land that is "capable of sustainable use for agriculture, with a reasonable level of inputs, and without causing degradation of land or other natural resources". This land is crucial for the production of food and sustainable for long-term use. These 2 million hectares of GQAL include 400,000 hectares of Class A crop land, defined as "land that is suitable for current and potential crops with limitations to production which range from none to moderate levels"; Class B limited crop land, "land that is marginal for current and potential crops due to severe limitations; and suitable for pastures"; and almost 60,000 hectares of potential Strategic Cropping Land (SCL), "a finite resource that must be conserved and managed for the longer term" (Fensham et al. 2010: 1). Figure 4.1 depicts the GBDSA's location in relation to the proposed Galilee Basin coal mines, which includes the Carmichael Project:

Figure 4.1 The Galilee Basin State Development Area and coal mines



(Lock the Gate Alliance 2014)

The Queensland Government classifies its land according to its suitability for agricultural production to allow for the planning of its use and to protect it from developments that would result in its diminished productivity. GQAL has been “considered” in planning approvals for industrial activities since 1992, according to the government (The State of Queensland 2018), but protective legislation was not established until 2011.

The Queensland Government’s *Strategic Cropping Land Act (2011)* was passed with the aim of protecting land SCL by managing the impacts of development on the land in order to preserve the productive capacity of that land for future generations. The Act was the first to identify and map potential SCL and protection and management areas and develop criteria for determining whether or not land could be considered SCL. In order to be considered SCL, an area’s history of cropping is considered and its soil moisture; depth; acidity; slope and rockiness are tested. The Act also created a process to assess development; allowed for conditions to be imposed on development plans in order to prevent permanent impacts on SCL in protection areas; and required mitigation to be paid by developers if SCL is permanently impacted in a protection (Lock the Gate Alliance 2014).

Although the *Strategic Cropping Land Act 2011* worked to protect the degradation of agricultural land, it was repealed on 20 March 2014 by the passing of the *Regional Planning Interests Act 2014*. Under the new Act, Queensland’s sole classified land became “Priority

Agricultural Areas,” defined as “an area used for a priority agricultural land use” (Lock the Gate Alliance 2014). All previously classified SLC became preserved as “regional interests” under Section 7 (c) of the Act.

The *Regional Planning Interests Act 2014* contains provisions that pertain to coal mining (and therefore the Carmichael Project). First, the Act does not prohibit coal mining or gas extraction in Priority Agricultural Areas, within 2km of residential areas, or within critical water resources. The Act also does not have agricultural impact assessments as a requirement for a Regional Planning Interest Authority, which would permit industrial activities such as coal mining if they are considered “regional interests”. While Priority Agricultural Areas are identified in new regional plans, the Galilee Basin State Development Area does not have any in its entire region because the current regional plan pre-dates the Act’s terminology (The State of Queensland Department of State Development, Infrastructure and Planning 2012).

In addition to the *Regional Planning Interests Act 2014*, on 7 November 2013, Queensland Premier Campbell Newman announced the Galilee Basin Development Strategy (‘The Strategy’) that threatens the GBDSA’s strategic cropping land. The Strategy included the following proposal:

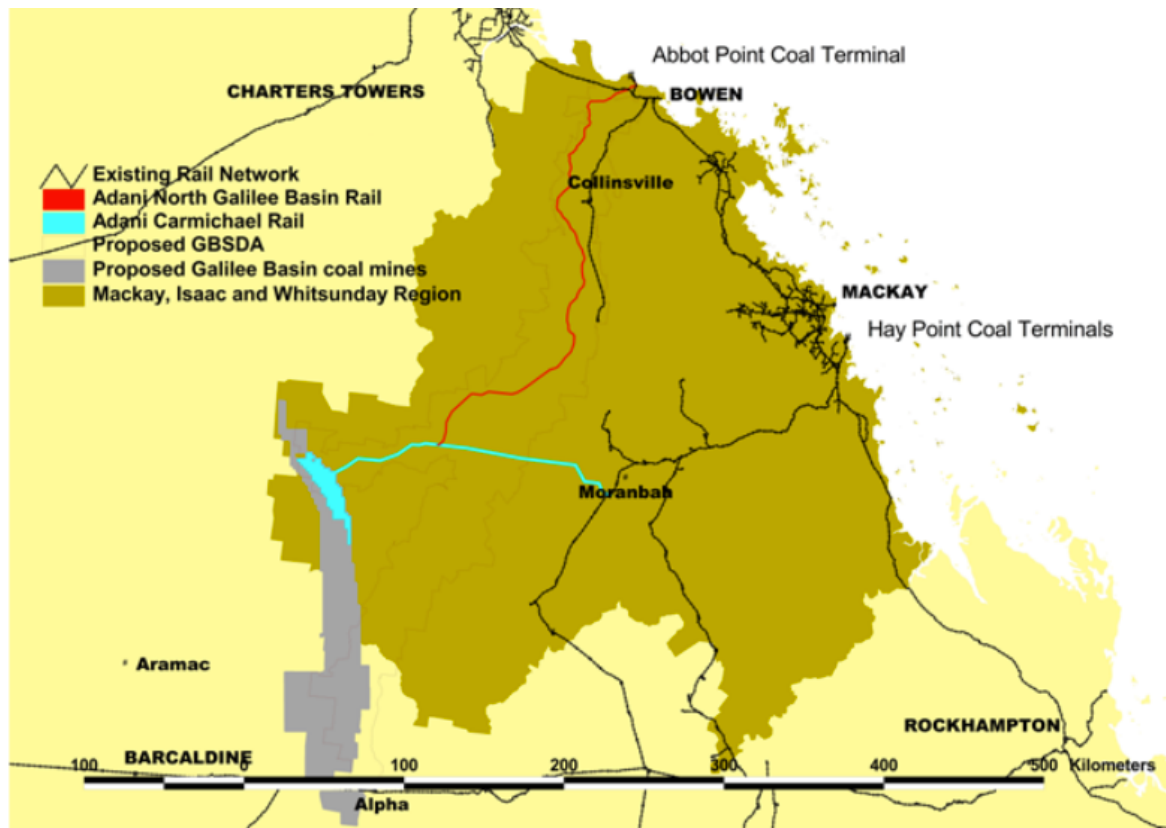
Under Section 14 of the draft GBSDA Scheme, landholders and others with interest in land affected by the scheme must apply in writing to the Coordinator General to continue making use of the land. This may be granted, as long as they had approval to use the land in that way before the SDA comes into effect, and as long as the SDA scheme doesn’t state another use for the land in question. To make such an application, they must pay a fee, and provide documentation demonstrating that the use they want to make of the land was permitted prior to the SDA coming into effect. The Coordinator General has the power to refuse the application, with no right of appeal (Lock the Gate Alliance 2014).

Over 60% of the GBSDA sits within SCL zones (Lock the Gate Alliance 2014). Section 14 of the Galilee Basin Development Strategy thus allows the Coordinator-General to compulsorily acquire any land in accordance with Section 82 of the State Development Public Works Organisation Act. The Strategy, along with the Regional Planning Interest Act, allows Adani to seek to coal mine in the Galilee Basin.

Impacts on Queensland’s crop land and local properties

Adani’s rail line, which would take coal from the Carmichael Mine in the Galilee Basin to Abbot Point, is one of five rail lines proposed for the GBSDA. A map of the rail proposals for the Galilee Basin is shown in Figure 4.2 below:

Figure 4.2 Adani's proposed railway for the Galilee Basin



(Lock the Gate 2014)

According to Adani's Environmental Impact Statement, "It is likely that only one of these rail lines will proceed" (Adani Mining Pty Ltd 2012a: 8-25). However, both the Alpha Coal Project Rail and the Waratah Coal Pty Ltd Galilee Coal Northern Export Facility Rail were already approved by the Queensland Coordinator General and the Federal Environment Minister while Adani's Carmichael Rail Project was awaiting approval. Adani's proposed rail project on the GBSDA would reduce the area of available agricultural land and divide the landscape in the region.

Adani's proposed rail line would be 189 kilometres in length and 95 kilometres in width, covering a total of 1795.5 hectares; passing through 21 properties; and spanning 1,334 hectares of GQAL (Adani Mining Pty Ltd 2012a). Adani has admitted that fragmentation and intrusion of agricultural property, GQAL, and loss of SCL is an "unavoidable cumulative impact of rail construction" but maintained that 54% of the 1,334 hectares is Class C1 land (pasture land classified as suitable for improved or native pastures) (Adani Mining Pty Ltd 2013a:12 and Adani Mining Pty Ltd 2012a: 54). If this were the case, 46% – approximately 613 hectares – would have to be either Class A or B land; land suitable for cropping.

Adani also argued the potential impacts on GQAL have been avoided and minimised:

Where mapped strategic cropping land is unable to be avoided, the route selection process has considered (amongst other environmental, social, cultural, economic, and technical constraints), the placement of the rail corridor such that it traverses

around or as close as possible to, the edges of polygons to minimise fragmentation (Adani Mining Pty Ltd 2012a: 56).

The assessment documents, on the other hand, depict 120 kilometres of the Carmichael rail corridor crossing the western extent of the strategic cropping land management area in the western cropping zone, seizing 155 hectares of land in the Strategic Cropping Land trigger map (Adani Mining Pty Ltd 2012a: iv and 47).

Adani also claimed that the rail alignment would follow property boundaries along these smaller landholdings, in order to reduce the potential land fragmentation. Once again, the plans in the assessment documents for the rail show that the alignment would traverse 11 leasehold properties and 10 freehold properties, affecting small landholdings near Moranbah. Quarry developments for the rail line would further affect five predominantly grazing or pastoral properties (Adani Mining 2013a: 21).

An assessment was undertaken on the properties containing SCL in the Carmichael rail plans. It was determined that only two of these properties contain SCL: Avon Downs (53.5 hectares) and Lambing Lagoon (19.3 hectares). Adani accepted the findings of the assessment and noted that the SCL Act offers alternatives to completely avoiding development on strategic cropping land. Measures to further avoid or minimize potential impacts, however, include developing and agreeing to a soil survey methodology with the Department of Natural Resources and Mines to determine the actual presence of strategic cropping land prior to construction. Lock the Gate Alliance (2014) stated that this process of assessing the land to determine the presence of SCL has the effect of whittling down the lands that are legally classified as SCLs until they no longer exist so the industrial activity can proceed.

Following the SCL assessment, Adani and the Queensland Department of Natural Resources and Mines negotiated the mitigation fees and rehabilitation requirements necessary for establishing a Deed of Agreement between Adani and the Department of Agricultural, Fisheries and Forestry to facilitate impact mitigation. (Adani Mining 2013a: iv and 20). It was agreed that Adani would be able to mitigate the loss of SCL by paying a fee between \$4,750 and \$15,000 per hectare – a “financial contribution commensurate” with the area that is a “common and reasonable management approach to minimise potential strategic cropping land impacts” (Adani Mining Pty Ltd 2012a: 57).

Even though the Galilee Basin State Development Area includes over half a million hectares of land that is suitable for agricultural productivity, the repeal of the Strategic Cropping Land Act prevented Adani from having to make amendments to their rail plan in the presence of SCL. And, under the Galilee Basin State Development Strategy, hectares of Class A good quality agricultural land will be available for compulsory acquisition by the state or a private foreign company and the land’s use for food production would potentially be lost forever (Lock the Gate Alliance 2014).

Under the Galilee Basin State Development Strategy, the Coordinator General is required *not* to support land use that is inconsistent with railways, once railways are approved. This provision has damaging effects on landholders in the GBSD area. Landholders would be required to submit applications for permissions to continue using the land. Cropping and animal husbandry are listed in the scheme as activities that “may be consistent” with the railways, yet farmers would have to pay a fee to apply to continue farming as long as they had approval to

use the land before the SDA comes into effect (Lock the Gate 2014). The Coordinator General also maintains the power to refuse applications with no right to appeal.

This legislation (and subsequently, the approval of the Carmichael rail line) is at odds with the Regional Plan for the Mackay-Whitsunday-Isaac region, which does not allow for the alienation, loss or fragmentation of good quality agricultural land unless there is an “overriding need in the public interest for the proposed use, and there are not alternative locations available” (Lock the Gate 2014). The Carmichael rail project proposed for the GBSDA will reduce the availability of high quality farmland in Queensland, fragment the agricultural landscape in the Mackay-Whitsunday-Isaac region and operate against the interests of the farmers who have long relied on the land for production. The Carmichael Project also threatens Queensland’s land with severe flooding.

Impacts from flooding

Queensland’s State Planning Policy (‘SPP 2017’) defines the specific matters of state interest in land use planning and development. A ‘state interest’ is defined as “an interest that the Planning Minister considers to affect an economic or environmental interest of the state or part of the state and/or the interest of ensuring that the purpose of the Act is achieved” (The State of Queensland Department of Infrastructure, Local Government and Planning 2017). One of these state interests is titled ‘natural hazards, risk and resilience’. According to SPP 2017, risks associated with natural hazards, “including the projected impacts of climate change” must be avoided or mitigated in order to protect the community (State of Queensland Department of Infrastructure, Local Government and Planning 2017). According to the The State of Queensland’s Department of Natural Resources and Mines (2017: 6), one of the natural hazards identified is the management of flood risk:

Management of flood risk is essential to limiting the impacts of flooding on the community in balance with maintaining the benefits of occupying the floodplain to society and the benefits of flooding to the environment. The goal is to have flood risk management that is sustainable, provides long-term benefits for the community and environment, and improves community resilience. Best practice promotes the understanding of flood behaviour so that the full range of flood risk to the community can be understood, effectively communicated and, *where practical and justifiable, mitigated*. It facilitates informed decisions on the management of this risk, and economic investment in development and infrastructure on the floodplain.

The construction of Adani’s rail line in the GBSDA does not comply with the Queensland State Planning Policy as it has the potential to create severe flood impacts, further damaging the farmland it crosses over. Adani’s assessment states that the proposed rail alignment would cross 12 major waterways and 76 minor waterways. As most of the length of the GBSDA is identified as a flood-prone area, extensive crossing of the floodplains would result in an intensification of flood impacts. Adani admits that the construction and operation of their Carmichael rail project may alter overland water flow and increase flood height and duration (Adani Mining Pty Ltd 2013a: 77). Afflux, the rise in the water level immediately upstream of and due to a natural or artificial obstruction, can potentially erode soil, impacting native species of plants and degrading farmland and grazing land (Lock the Gate Alliance 2014). Adani notes that introducing any permanent drainage infrastructure that interacts with an existing waterway will alter the existing drainage patterns and lead to temporary changes in afflux upstream of the flow path:

[A]chieving afflux design criteria is a process that seeks to achieve a balance between minimising the impacts of afflux and achieving a practical and cost effective design. Some amount of afflux is unavoidable due to the proposed structures, and infrastructure assets in the floodplain such as roads and farm tracks will most likely be affected by any increased depth and duration of flooding (Adani Mining Pty Ltd 2013a: 49).

Despite these impacts, the rail line was approved. Under the *State Development Public Works Organisation Act*, the policies of the SPP do not apply to Adani's proposals. This loophole makes hazard reduction and assessment measures for such a large infrastructure project less stringent than those applied at the local government level for decisions about building sheds on the same floodplains (Lock the Gate Alliance 2014).

Queensland has a naturally varying climate that is projected to become more extreme in the future, potentially affecting the frequency and severity of climate-related events such as flooding (Lock the Gate 2014). The GBSDA includes over half a million hectares of land that is prone to regular flooding. Thus, any railways built on this land requires substantial drainage plans to offset the flood impacts that would be exacerbated by elevated rail lines crossing the GBSDA's waterways and floodplains. Although the potential impacts that the Carmichael rail line would have on flooding is significant and should be subject to precautionary measures, Adani's rail proposal does not detail the effects that its railway infrastructure would cause by raising flood levels during high floods.

The Queensland Government had promised a doubling of agricultural productivity and food production by 2040, but instead has facilitated the loss of the highest quality agricultural land to accommodate a powerful corporation. In order for agricultural production to be a priority for the Government, there needs to be a prohibition on development that sterilises land that is suitable for food production (Lock the Gate 2014).

Rather than following Regional Plans or acting in accordance with the interests of most Australians, the Queensland Government has considered financial reward, operated on lax regulatory approval pathways, and even promises unlimited water permits for Adani's development of the Galilee Basin.

Harms to Water

Underground coal mines rely on large quantities of water throughout their operation. In the excavation phase, water is used cool surfaces of mining equipment to reduce the hazard of fires and for equipment maintenance. In the processing stage, water is used to suppress dust and for coal washing. Water management is thus one of the key environmental sustainability challenges for the mining industry (Amezaga et al. 2011; Mudd 2008; Northey et al. 2016). Approximately 250 litres of freshwater are used per tonne of coal produced (Moon 2017). The Carmichael Mine is set to produce 40-60 million tonnes of coal, requiring approximately 12,000 ML of groundwater (Adani Mining Pty Ltd 2013a). The importance of water has led to an increase in conflicts regarding water resources and impacts from mining around the world (Kemp et al. 2010; Gleick and Heberger 2014). In Australia, the debate has largely focussed on groundwater (Harrington and Cook 2014).

Most of the water for the Carmichael Project, according to the Commonwealth Government, is scheduled to come from the Great Artesian Basin – one of the largest underground water reservoirs in the world, pictured in Figure 4.3 (Commonwealth of Australia 2015a and Moon 2017).

Figure 4.3 The Great Artesian Basin



(Moon 2017).

The Carmichael Mine's water use would result in major negative changes to groundwater reserves. Groundwater is an essential resource for pastoral use, domestic and town water supplies and ecosystems due to its reliability. (Hydrocology Environmental Consulting 2013). In Australia, mining companies and governments have focused on obtaining the legal rights to use groundwater for their projects from state governments. Currell et al. (2017) examined how hydrogeological science was incorporated into the Carmichael Coal Mine's assessment. They found:

[T]hroughout the approval process and design of operating conditions, large uncertainties remained unresolved regarding the conceptual hydrogeological model and numerical model for the mine. This was acknowledged in the Land Court judgment on the case, and the Federal Minister for the Environment's approval conditions for the mine specify that, prior to commencement of excavation, research and monitoring plans must be submitted that address these issues (Currell et al. 2017:675).

Open-pit mining projects like the proposed Carmichael Mine may result in permanent impacts, but these impacts are often slow to develop and therefore difficult to measure (Currell et al. 2017). A thorough assessment should include post-mine closure conditions and long-term management strategies. In the case of the Carmichael Mine's approvals, however, courts have decided to defer the resolution of scientific uncertainties regarding groundwater until after the mine has been approved to commence (see Chapter Three). In addition, Adani's water licence

application was exempt from the public scrutiny due to an amendment passed in November 2016 to the existing laws (Moon 2017). Adani was thereby granted an unlimited water licence, thereby eliminating the requirement for the corporation to apply for a new licence (and go through the standard approvals assessments) if they should discover they need more water than initially expected. In March 2017, Adani was granted a water licence by the Queensland Government to use up to 26 million litres of water per day for a period of sixty years, from the only reliable supply of water for large parts of northern Australia – the Great Artesian Basin (Agarwal 2018).

Adani's Environmental Impact Statements and other formal assessments show that the Carmichael mine has the potential to cause permanent damage to regional groundwater and surface water resources (directly impacting water availability in nearby towns) and to the Doongmabulla and Mellaluka Springs.

Impacts of mine de-watering and groundwater discharge

The Carmichael mine proposes to use significant volumes of groundwater in order to dewater underground mines and open cut pits (Hydrocology Environmental Consulting 2013). This dewatering will result in permanent changes to groundwater levels and flow direction; hydrochemistry; recharge and discharge mechanisms of regional aquifers (underground layers of water-bearing permeable rock) and potentially Great Artesian Basin aquifers (Hydrocology Environmental Consulting 2013).

Adani projects that by the year 2067, approximately 125 billion litres of groundwater will have entered the Carmichael Mine's open cut pits and over 112 billion litres into its underground workings by 2047 (Hydrocology Environmental Consulting 2013). Since the proposed location of the Carmichael Mine is in close proximity to other proposed mines in the Galilee Basin, the compounded effects from the overlap between the groundwater drawdown areas (which are the radius of which the water is drawn from, and larger than the target area of dewatering) will impact a region far beyond the Carmichael Mine's operating area. This is largely because drawdown spreads through aquifers and cannot be confined to the area being dewatered.

The Carmichael Project's EIS states that after about 60 years of the proposed 90-year life of the mine – the period of most intensive mining – drawdowns of 30 to 60 meters would occur in the groundwater table in the vicinity of the Carmichael River (Adani Mining Pty Ltd 2012a). It has been acknowledged that this will result in the reduction of the flow of the Carmichael River (Hydrocology Environmental Consulting 2013). The Carmichael Project's EIS also states that groundwater discharge to the Carmichael River may be occurring upstream of the proposed mine, but the degree to which the river is fed by direct discharge from groundwater into the river itself, or from the upstream Doongmabulla Springs (which are Great Artesian Basin discharge springs) was not able to be determined (Adani Mining Pty Ltd 2012a).

Groundwater and surface water are connected through the hydrological cycle. Through discharge and drainage into springs, rivers, lakes and wetlands, groundwater can become surface water. Similarly, surface water can seep into the ground and recharge the aquifers, becoming ground water (Siebert et al. 2010). By impacting groundwater, the Carmichael Mine will also put the area's surface water (and ecosystems that depend on them) at risk (Winter et al. 1999). Adani has assessed the water chemistry of the Carmichael River and nearby groundwater resources and discovered that it is likely that the surface water of the Carmichael

River is influenced by the nearby groundwater aquifers, especially during the dry season (Adani Mining Pty Ltd, 2012).

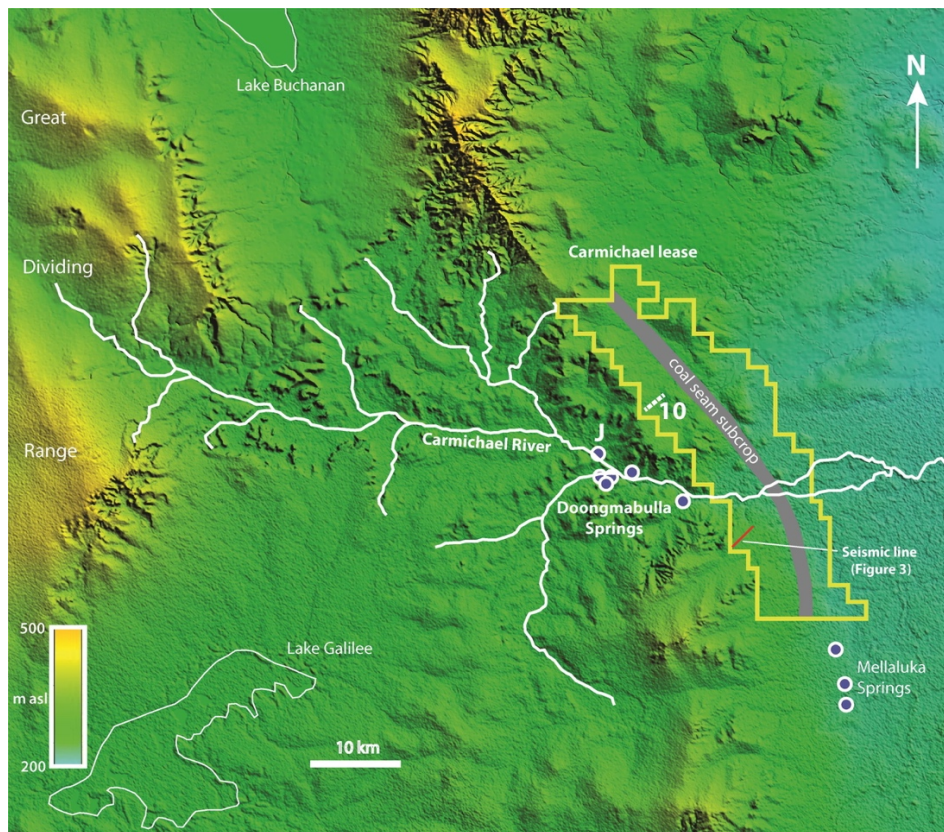
The past 120 years of exploitation have used less than 0.1% of the water stored in the Great Artesian Basin, meaning while it is not in danger of running dry due to Adani's usage, the problem is with the effect on water pressure (Moon 2017).

Water accumulated in aquifers below the earth's surface are accessed via bores or wells. Flows from artesian bores are currently approximately half of 1915 levels. A third of bores have completely stopped flowing and the water levels in some of the remaining bores have fallen by as much as 80 metres since 1915 (Moon 2017). This lack of flow, caused by a lack of pressure, has consequences that affect the human and non-human animals and plants that rely on the water.

Impacts on the Doongmabulla Springs Complex

Doongmabulla Springs Complex (DSC) are a series of approximately 60 fresh water springs scattered around the Carmichael River, approximately 8km west of the proposed Carmichael Mine (Currell et al. 2017), depicted in Figure 4.4 below (Currell et al. 2017). The springs are a part of a larger spring 'supergroup' that is associated with the Great Artesian Basin. The DSC is a rare source of reliable water in this region, feeding approximately 160 wetlands up to 8.7ha in size (Fensham et al. 2016; Wangan and Jagalingou Family Council 2015). They are protected under a Nature Refuge Conservation Agreement between the landholders and the State of Queensland and the *Environmental Protection Biodiversity Conservation Act 1999* (Currell et al. 2017). The protection recognises the spring complex's high level of endemic plant and animal species as well as the diversity of the vegetation in the area that relies on the springs (Fensham et al. 2010; Fensham et al. 2016).

Figure 4.4 Location of Carmichael Coal Mine and Doongmabulla Springs



(Currell et al. 2017)

Joshua Spring ('J' in Figure 4.4) – the largest spring in the complex – has a flow rate of approximately 5L/s into the 'turkey-nest dam', a small earth dam which has a water level of 2-3m above land (Currell et al. 2017). The outflow from Joshua Spring and the two springs closest to it, Moses and Little Moses Springs, provides the base flow to the Carmichael River, which then flows for 20km downstream into the Belyando River.

The Mellaluka Springs is the second spring complex near the proposed Carmichael Coal Mine site. This complex is made up of three artesian, freshwater springs, Mellaluka, Lignum and Stories Springs, lying approximately 35km southeast of Doongmabulla Springs and 5-10 km south of the proposed mining site (Currell et al. 2017). They lie to the east of the coal seams and are believed to receive water from the sandstone in the Colinlea Sandstone or a permeable stone at the top of the Joe Joe Formation (Hydrocology Environmental Consulting, 2013).

The Queensland Government's Recovery Plan for the community of native species dependent on natural discharge of groundwater from the Great Artesian Basin states that critical habitat of the endangered plant *Eryngium fontanum* is the spring-fed wetlands with a groundwater source from the GAB within a 5 kilometre radius of Doongmabulla Springs (The State of Queensland Department of Environment and Resource Management 2010a).

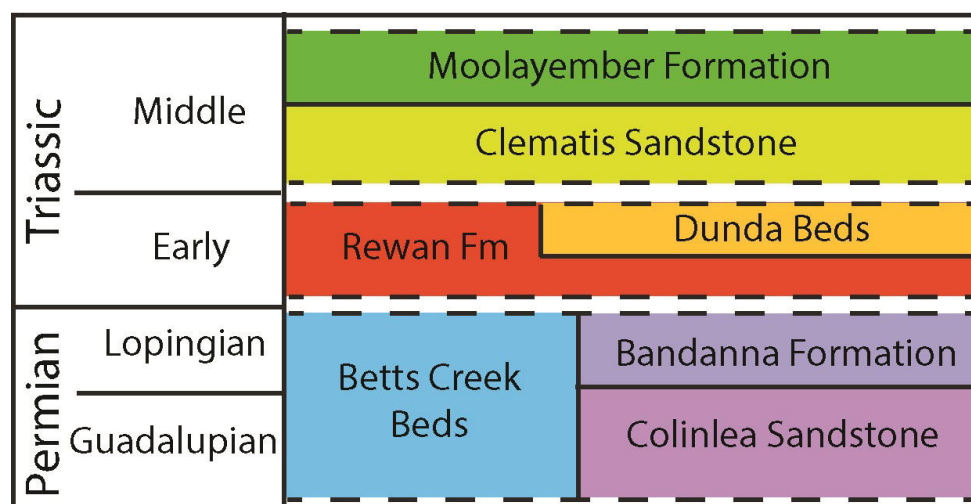
Objections to the Carmichael Mine by the Land Services of Coast and Country Inc. (LSCC) were heard in the Queensland Land Court in September 2014 and heard in 2015 (see Chapter Three). LSCC argued that 'If the mine proceeds, it will impact groundwater dependent springs and systems that are important for human use, agriculture and biodiversity, including but not

limited to: (a) the Doongmabulla Springs Complex – including Moses, Little Moses and Joshua; (b) the Mellaluka Springs Complex – including Mellaluka Spring, Lignum Spring and Stories Spring” (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors 2015 QLC 48*). LSCC and Adani Mining prepared reports on the hydrogeological evidence presented in the Environmental Impact Statement (EIS) and Supplementary EIS (Bradley 2015; Merrick 2015a, 2015b; Webb et al. 2015; Werner 2015).

Adani’s EIS identifies that the Mellaluka Springs are likely to experience 0.7 to 0.8 metres drawdown due to mine dewatering at the peak intensity of the mine’s operation, in its sixtieth year (Adani Mining Pty Ltd, 2012a). The EIS further acknowledges that “further assessment of the ecology and hydrogeology of the springs themselves and of the area between the springs and the proposed mining area is required to better understand the potential for impact in this area” (Adani Mining Pty Ltd, 2012a: 113). Adani predicts that the mine will result in a drawdown of 5 metres at Mellaluka Springs (Adani Mining Pty Ltd, 2012a: 118). Adani’s EIS also acknowledges that the most intensive phase of the mining will also lead to “loss of a small area of vegetation, including species of conservation significance, along the outer boundary of the [Doongmabulla Springs] wetland as the volume of flow from the spring declines” (Adani Mining Pty Ltd, 2012a: 35). The hydrogeological model of the Doongmabulla Springs and the level of impact from mining on the model were contested.

Prior to the Land Court hearing, in a joint report written by all groundwater experts, it was agreed that ‘the source of the Doongmabulla Springs is inconclusive and there are two potential sources that need to be considered; one a source from below the Rewan Formation, the other a source from above the Rewan Formation. Methods such as isotope sampling, in conjunction with analysis of existing data (water chemistry, water level, geology) would potentially assist in resolving the question’ (Webb et al. 2015). The source aquifer of the springs is essential for considering any potential impact of the mine (Currell et al 2017). If the source is the Colinlea Sandstone via a path through the Rewan Formation, depressurisation due to mining would have a significant effect on the water level of the springs. Alternatively, the base-case scenario and the argument adopted by Adani, is that the Doongmabulla Springs are fed from the Triassic strata (see Figure 4.5 below), which would only cause a minor drawdown since the Rewan Formation acts as a regional aquitard in this case.

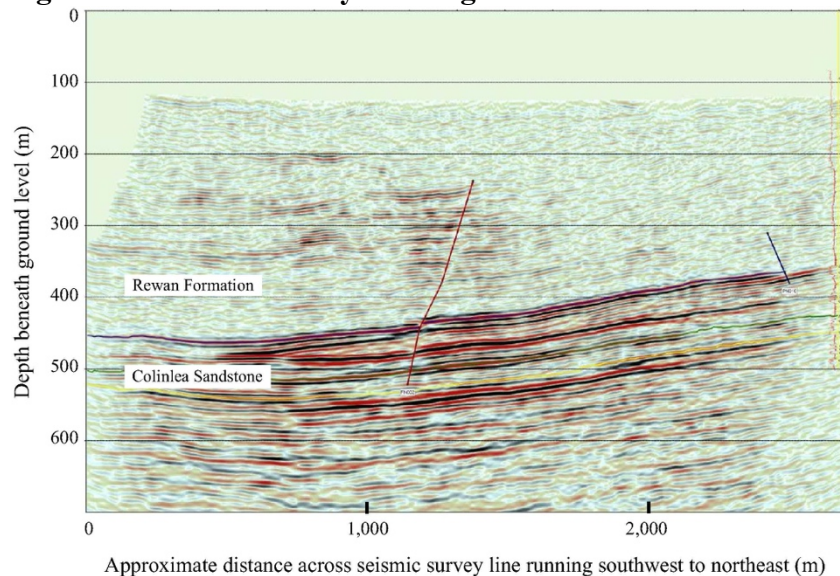
Figure 4.5 Galilee Basin Stratigraphy



(McKellar and Henderson 2013; Allen and Fielding, 2007)

Surveys had been conducted on the eastern portion of the mining lease but no seismic surveying or drilling had been conducted to investigate faulting in the Rewan Formation (Currell et al 2017), despite other evidence that faults exist in the hydrogeology of the Galilee Basins (Moya et al. 2014; Smerdon and Turnadge 2015). Figure 4.6 depicts an interpreted east-west 2-D seismic survey line showing probable fault (red line) offsetting top coal seams (thick black lines) in the Colinlea Sandstone (McClintock 2012). The Land Court’s decision did not consider these studies to be significant although the experts agreed that if the excluded scenarios were correct, the mine would lead to springs disappearing (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors 2015 QLC 48*)).

Figure 4.6 Seismic survey showing fault in Colinlea Sandstone



(McClintock 2012)

The Federal Government has a statutory role in guaranteeing that large mining activities do not damage water resources. Despite the predicted impacts set out in the EIS, the Carmichael Mine has been approved without a complete understanding of the impacts. The Carmichael Mine has the potential to impact the water resources in the Great Artesian Basin, affecting the ecosystems and local populations reliant on this water for their livelihood. The state has not sufficiently addressed claims that the impacts of the Carmichael Mine will have on groundwater resources, leaving the levels of damage to remain unknown.

Harms to Air: Climate Change Impacts

The objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to avoid dangerous interference by humans with the climate system (UN 1992). To meet this objective, parties to the UNFCCC set a goal in 2009 to limit the increase in global temperatures to 2°C (Taylor and Meinshausen 2014). As one of the parties to the UNFCCC, Australia has pledged to reduce its GHG emissions by five percent below 2000 levels by 2020. This target, however, is based on net national emissions and does not include emissions associated with fossil fuels exported to be used by other nations. The majority of the coal produced from the Carmichael Mine is expected to be used in India, a country that has also pledged to reduce its emissions but has not pledged absolute emissions reductions or caps.

Reaching 2°C warming will have significant environmental impacts in Queensland, Australia, and globally. The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), published in 2014, represents the most comprehensive scientific assessment of climate change and its causes, impacts, and mitigation measures to date. The Commonwealth Government report, ‘The Critical Decade 2013: climate change science, risks and responses’, provides an overview of climate change science with an Australian national focus. The 2010 Queensland Government report ‘Climate Change in Queensland: What the Science is Telling Us’ does this with a Queensland focus.

It has been found that in Queensland, a 2°C warming will result in: a decline in environmental qualities, demonstrated by events such as the continued bleaching of corals in the Great Barrier Reef (IPCC 2014; The Commonwealth of Australia 2013b: 5 and 74; The State of Queensland Department of Environment and Resource Management 2010b: 2); increased flooding, erosion and damage in coastal areas due to increased numbers of severe tropical cyclones and sea level rise (The State of Queensland Department of Environment and Resource Management 2010b: 15, 25, 27, 38, 40); significant increase in heat-related deaths and diseases (The Commonwealth of Australia 2013b, 2013: 60-61; State of Queensland Department of Environment and Resource Management 2010b: 66); reduced water availability and increased frequency of droughts, affecting agricultural production (Climate Commission 2013: 65); and coastal erosion due to sea level rise, approximately 40 cm higher by the late 21st century (IPCC 2014). In Australia, a 2°C warming will result in: more frequent heat waves (IPCC 2014 and The State of Queensland Department of Environment and Resource Management 2010: 3) and more frequent and/or more intense droughts (IPCC 2014 and The State of Queensland Department of Environment and Resource Management 2010b: 3).

In addition, reaching 2°C will amplify existing risks and create new risks for natural and human systems (Taylor and Meinshausen, 2014). What happens in Queensland is relevant to other places as well both in terms of production of greenhouse gases and the consequences of climate disruption. The risks arising from climate change are unevenly distributed and will have greater impacts on disadvantaged people and developing countries. Continuing high emissions would lead to negative impacts on biodiversity, ecosystem services, and economic development as well as amplify risks for livelihoods and for food and human security (IPCC 2014). Moreover, it is anticipated that climate change impacts will stifle economic growth, make poverty reduction more difficult, continue to erode food security, and prolong existing and create new poverty traps particularly in urban areas and ‘emerging hotspots of hunger’ (IPCC 2014).

Cumulative greenhouse gas emissions

Carbon emissions accumulate in the atmosphere. It takes hundreds to thousands of years for the Earth’s natural processes to remove CO₂ that has been added to the atmosphere, oceans, and land biosphere from human activities such as the burning of fossil fuels (Taylor and Meinshausen 2014). It is therefore the cumulative – not annual – CO₂ emissions of the Carmichael Mine that are most important when considering climate change impacts. Due to cumulative impacts of carbon emissions from this century alone – that is, without the emissions from the Carmichael Mine – global temperatures will not decrease and the sea level will continue to increase for at least a millennium. The additional carbon emissions from the burning of the Carmichael Mine’s coal and their impacts on climate change will thus be irreversible for the next millennium. In order to properly assess the Carmichael Mine’s emissions based on the science of cumulative emissions, the Mine cannot be viewed as

operating a vacuum and instead must be seen in terms of the change in global net emissions. In their joint expert report for the Land Court, Taylor and Meinshausen (2014) observed:

There is a net change to global emissions to the extent emissions associated with the Mine are not offset by a reduction in emissions elsewhere, or to the extent that they would otherwise occur even if the Mine were not approved. All emissions from the burning of product coal from this Mine will have a climate impact in the physical cause-effect sense. If those climate impacts are additional to what would have occurred in the absence of the Mine's approval depends on the extent the Mine increases global coal consumption. The calculated cumulative emissions associated with the project, therefore, should be seen as a worst-case net change in global emissions.

Mitigating climate change impacts and limiting warming to below 2°C requires zero net emissions of greenhouse gases by the end of the century and substantial emissions reductions over the next few years. It is through negative net CO₂ emissions that remaining positive greenhouse gases could be offset by the end of the century.

The cumulative emissions of the proposed Carmichael Mine account for approximately 0.53%-0.56% of the carbon budget remaining after 2015 in order to have a likely chance of staying below 2°C of warming. Table 4.1 breaks down these emissions by their scope classification:

Table 4.1: Scope 1, 2, and 3 emissions associate with Carmichael Mine

Scope	Annual Average Emissions	Life of Mine Emissions
Scope 1	628,723	37,723,358
Scope 2	808,898	48,533,904
Scope 3	77,395,516	4,643,730,979
Scope 1+2	1,437,621	86,257,262
Scope 1+2+3	78,833,137	4,729,988,241

(Taylor and Meinshausen 2014: 8).

In an individual report to the Land Court of Queensland, Meinshawsen (2015) wrote:

Our Table refers to Annual average emissions of 77,395,516 tonnes of CO₂-e scope 3 emissions. I should note that this value has been derived simply by dividing the overall cumulative amount of emissions of 4,653,730,979 tonnes of CO₂-e by 60 years. Given that some parts of the mining proposal refer to higher coal production numbers per year (60 Mt product coal), the annual emissions over the initial project lifetime (30 years) could be substantially higher – e.g. almost twice as high – compared to the average 60 year value in our table (up to 121 MtCO₂ per year).

Assuming that there will not be any further growth in emissions, the current global carbon budget would be exceeded in approximately 20 years from 2034. However, the Carmichael Mine's lifespan is stated as at least 60 years. This means that by the time less than one third of the calculated cumulative emissions associated with the Carmichael Mine would have occurred, the emissions necessary to limit warming to 2 degrees will have been surpassed.

The cumulative emissions related to the Carmichael Mine are the highest in the Southern Hemisphere and among the highest in the world for an individual project. The annual emissions associated with the Mine would be equivalent to 14% of Australia's base greenhouse gas emissions in 2000 (Taylor and Meinshausen 2014). Although the burning of the Carmichael Mine's coal would not contribute to Australia's national greenhouse accounts, the scale of the annual emissions associated with the burning of the coal would be equal to approximately three times Australia's annual emissions reduction target of five percent below 2000 levels by 2020 (Taylor and Meinshausen 2014).

McGlade and Ekins (2015) indicate that a large proportion of coal must stay in the ground in the OECD Pacific region, including Australia, if the global target of staying below 2 degrees is to be achieved. More specifically, 83 gigatonnes of coal – equivalent to 93% of current resources – must be left in the ground to have a 50:50 chance of staying below 2°C warming. The higher the likelihood of staying below 2°C warming, the higher the fraction of carbon that has to remain in the ground (McGlade and Ekins 2015). Between 2011 and 2050, only 4.5 to 6.3 gigatonnes of coal can be produced from OECD Pacific coal mines, implying that the Carmichael Mine's projected 2.3 gigatonnes of coal would consume 37-51% of allowable coal production (if the mine were to produce and emit carbon until 2050) (Meinshausen 2015). It is therefore irrefutable that the Australian coal which the Carmichael Mine seeks to use is 'unburnable' unless either the 2°C limit is reconsidered or the mining leases of other mines in Australia (totalling a similar amount of coal production to the Carmichael Mine) are ceased.

Harms to the Great Barrier Reef

The Great Barrier Reef is one of the world's largest and most spectacular coral reef ecosystems. Lining almost 2,100 kilometres of the Australian coastline, the Great Barrier Reef is the largest continuous coral reef ecosystem in the world. It is home to an amazing variety of marine organisms including 6 species of marine turtles, 24 species of seabirds, over 30 species of marine mammals, 400 coral species, 4,000 species of molluscs and 1,500 fish species (UNESCO, 2017). New species are described each year, and some estimates suggest we are familiar with less than 50% of the total number of species that live within the ecosystem (Hoegh-Guldberg 2015). The Great Barrier Reef is considered to be one of the most pristine ecosystems as a consequence of a low human population pressure, compared to, for example, other coral reef ecosystems like Indonesia where tens of millions of people live directly adjacent to the coral reefs (Hoegh-Guldberg 2015). The Great Barrier Reef Marine Park Authority (GBRMPA) is a state-of-the-art, science-based agency that is responsible for the environmental management of the Great Barrier Reef Marine Park, which was established in 1975 by the Federal Government and was declared a World Heritage Area in 1981.

The Great Barrier Reef also contributes significantly to the Australian economy through four main sectors: tourism; commercial fishing and aquaculture production; recreational activity; and scientific research and management (Deloitte Access Economics 2017). In 2015-2016, the Great Barrier Reef added \$6.4 billion to the Australian economy – \$3.9 billion within Queensland and \$2.9 billion within Great Barrier Reef regions (Burdekin, Burnett Mary, Cape York, Fitzroy, Mackay Whitsunday and the Wet Tropics) (Deloitte Access Economics 2017). The total value added by each of the four sectors is shown in Figure 4.3.

Figure 4.3: Economic Contribution of Great Barrier Reef in 2015-2016

		GBR Regions	Queensland Total	Australia Total
Value added	Tourism (\$billion)	\$2.4	\$3.4	\$5.7
	Fishing (\$million)	\$139	\$140	\$162
	Recreation (\$million)	\$284	\$296	\$346
	Scientific research (\$million)	\$155	\$161	\$182
Total value added (\$billion)		\$2.9	\$3.9	\$6.4
Employment (FTE)	Tourism	19,855	28,768	58,980
	Fishing	680	690	814
	Recreation	2,889	2,964	3,281
	Scientific research	895	914	970
Total employment (FTE)		24,319	33,336	64,044

(Deloitte Access Economics 2017: 26)

In addition to \$6.4 billion annually, the Great Barrier Reef also provides over 64,000 full-time jobs to Australia, making the Great Barrier Reef a larger employer than Qantas, Telstra, and other Australian corporations (Deloitte Access Economics 2017). The GBR's enormous economic value alone should be enough for it to be considered 'too big to fail' by the Australian Government. Adding the social and cultural 'icon' value of the GBR to an assessment of its worth makes it clear that the Reef is priceless and irreplaceable. Yet, 50% of the corals in the Great Barrier Reef have been lost in the last 30 years, with the most severe bleaching taking place in 1998 and 2002 (Hoegh-Guldberg 2015). The long-term sustainability of the Great Barrier Reef is threatened by local (e.g. water quality, coastal degradation, pollution, and pressures from fishing) and global (e.g. climate change, ocean acidification) factors. Of these factors, climate change is the most serious (Deloitte Access Economics 2017; Hoegh-Guldberg 2015).

Climate change impacts

Currently, we are living above the thermal threshold for damage to reef building corals and coral reefs. This means the atmosphere has reached its 'limit' on the amount of greenhouse gases that it can contain without affecting the Great Barrier Reef. In other words, any additional CO₂ emitted into the atmosphere will directly damage the Great Barrier Reef (Hoegh-Guldberg et al. 2007).

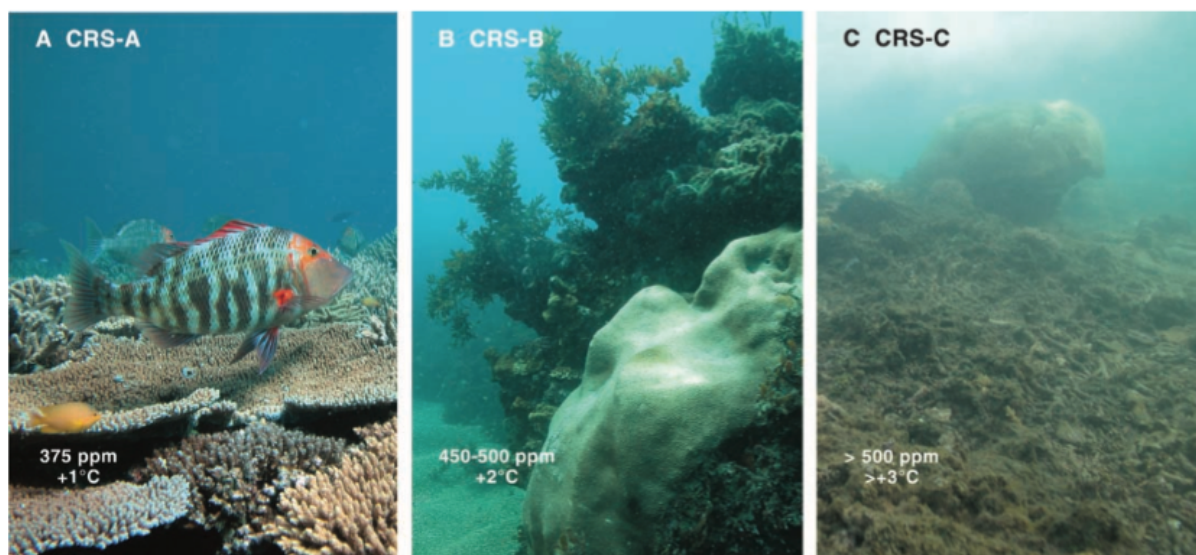
Changes associated with climate change that affect the Great Barrier Reef include rising sea and air temperatures, ocean acidification, nutrient enrichment, altered light levels, more extreme weather events, changes to ocean circulation, and sea-level rise (Morrison and Hughes 2016). Since the 1950s – the period during which the Intergovernmental Panel on Climate Change identified human influence on climate change – the average sea temperature on the Great Barrier Reef has warmed by approximately 0.6°C (Morrison and Hughes 2016). Ocean warming triggered two major coral bleaching events in the GBR, in 1998 and 2002, affecting about 50% of the Reef. The third major coral bleaching event occurred in 2016, with bleaching expected to increase in frequency and intensity in the coming years. The oceans have absorbed nearly one-third of human-produced carbon dioxide released into the atmosphere in the past 200 years, resulting in a more acidic ocean chemistry (Morrison and Hughes 2016). An average

global decrease in oceanic pH of 0.1 units have led to a decline in concentrations of aragonite, an essential mineral for the growth of corals (IPCC 2013).

Severe tropical cyclones also damage coral reefs. The effects of Cyclone Yasi in 2011 saw broken corals reported across an area of the Great Barrier Reef exceeding 89,000km² (Great Barrier Reef Marine Park Authority 2009). Droughts driven by El Niño events are expected to increase in frequency and intensity as a result of climate change, causing large freshwater plumes to also increase, which bring terrestrial contaminants to inshore and mid-shelf reefs (Morrison and Hughes 2016). Since 1990, sea level rises have been occurring at a rate of 1 to 2 mm per year (Church et al., 2013). Under mid-to-high emissions scenarios, sea level in the central GBR could be 0.3 to 0.9 mm higher by 2100 (Hobday and Lough 2011). Heightened sea levels “compound the impacts of storm surges associated with tropical cyclones and king tides, posing substantial risks for GBR-dependent settlements and coastal infrastructure, and associated industries” (Morrison and Hughes 2016).

The thermal coal that is expected from the Carmichael Mine is estimated to be in excess of 2.326 gigatonnes; the direct and indirect greenhouse gas emissions (scope 1, 2, and 3 emissions) expected from the mine are 4.74 gigatonnes of carbon dioxide (Gt CO₂) (Taylor and Meinshausen 2014). The global carbon budget after 2015 is 250 Gt CO₂ for a *likely* chance (66% or greater) of keeping global mean temperature rises below 2°C (Hoegh-Guldberg et al. 2007). The global carbon budget is based on increasing atmospheric concentrations of CO₂ to approximately 450 ppm, which will result in severe damage to the Great Barrier Reef, as depicted below in Figure 4.4.

Figure 4.4: Effect of Atmospheric CO₂ on the Great Barrier Reef



(Hoegh-Guldberg et al. 2007)

These figures depict the probability that the contribution of the CO₂ emitted from the coal extracted from the Carmichael Mine represents a significant contribution – around 0.53 to 0.56% – to the global carbon budget, and therefore climate change and ocean acidification.

Despite these predictions, scientists have devised a six-point plan for restoring the Great Barrier Reef:

First, the former emphasis on conservation and protection must be reinstated, recognizing that it will not be possible to develop and operate the largest coal ports in the world along the edge of the Great Barrier Reef World Heritage Area over the next 60 years without causing permanent damage to the region.

Second, Australia should play a more active role in transitioning away from fossil fuels to renewable energy, and rejoin the global community in tackling dangerous climate change. The era of thermal coal is coming to an end and efforts to prolong it by opening new coal mines are too risky for the GBR and for climate-sensitive ecosystems elsewhere.

Third, a permanent legislative ban of sea dumping of dredge spoil within the World Heritage Area.

Fourth, the environmental impact assessment processes for new developments should be reformulated to ensure that all options to avoid impacts are comprehensively and transparently evaluated and independently assessed, and that offsets are used only as a last resort.

Fifth, the GBR Marine Park Authority needs to be reinstated as the lead agency responsible for all aspects of the GBR. The GBR Marine Park Authority should be expanded to include ports as a new type of zone, thereby providing more effective and integrated management over areas currently adjoining the marine park and fulfilling the mandate of the Great Barrier Reef Marine Park Act 1975 for sustainable management of the Great Barrier Reef Region.

Sixth, develop and adequately fund a 50-year plan for use of the catchment, designed to reduce greenhouse gas emissions and agricultural runoff” (Hughes et al. 2015: 510).

The approval and operation of the Carmichael Project is incompatible with the plan to save the Great Barrier Reef. Climate science has proven that it is either the Mine or the Reef. The Queensland and Australian governments have supported the mining project, despite these potential ecocidal outcomes. These are the facts.

Interpreting the science

So far, this chapter has demonstrated that objective harms of the proposed Adani Carmichael Mine and Rail Project – as studied and reported by the scientific community – do exist. However, these environmental issues do not exist separate from human society. Specific environmental harms will always be constructed as such through complex social processes of selection and affirmation (White 2008). Which harms come to public attention (versus which are hidden from public attention) depends upon the way in which information is mobilized.

The critical role of science in bringing problems to the public’s attention, and in considering ways to monitor or minimise environmental problems depends on how scientists are integrated into the policy-making process. There are a number of factors that come into play. First, as

Silva and Jenkins-Smith (2007) found, scientists' application of precaution as a policy recommendation is directly linked to the nature of the specific issue at hand – it is entirely dependent on context, even when there is consensus among scientists about what is scientifically correct. Popular understandings and existing policy initiatives shape how scientific knowledge is translated into judgments about appropriate policy (White 2008). Further, the relationship between scientific advice and institutional decisions means considerable variation in how different governments deal with the same issue, even if there is consensus among the nature of the issue. Irwin (2001: 116) has found that 'institutions do not simply follow broad and established principles, but must instead tread a sensitive path between scientific evidence, social pressures and commercial anxieties'.

White (2008: 34-35) summarises the social constructions of environmental problems:

It is rare that scientific evidence is uncontested and that proof of environmental harm is simply a matter of 'let the facts decide'. What counts as 'science', what counts as 'evidence', who counts as a 'scientific expert' and what counts as 'sensible' public policy are all influenced by factors such as economic situation, the scientific tradition within a particular national context, the scientific standards that are used in relation to specific issues and the style and more of government. Science is one of the backbones of discovery, measurement and explanation of environmental harm, but it, too, is embedded in particular social processes and decision-making frameworks. In this respect, science is inherently social.

So, while the problems – for example, those that may result from the building and operating of the Carmichael Project – may be real, but the way the problems are defined; their magnitude, risk, impact and origins are open to interpretation.

Conclusion

This chapter has provided a detailed description of the scientific evidence available on the impacts of the Carmichael Project on the planet. The harms to land from the Carmichael Rail include the sterilisation of some of Queensland's most fertile cropland, severe flood impacts, and the fragmentation of grazing and pastoral properties. The Carmichael Mine would need billions of litres of groundwater, which would permanently alter the groundwater reserves of the Great Artesian Basin. The Mine would also damage the wetland ecosystem of the Doongmabulla and Mellaluka Springs, the habitat of several at-risk species. Most notable, however, is the Project's contribution of greenhouse gases. The Carmichael Mine's coal would emit an amount of carbon dioxide that would be incompatible with the global carbon budget. Among the many severe impacts the emissions would produce, it would destroy the Great Barrier Reef. However, despite the availability of scientific research in these areas, it has not always been used or understood.

The Queensland and federal governments' approval of the Carmichael Project despite these impacts raises some serious questions, such as "how could this be allowed to happen?" The next two chapters provide a discussion of how these harms have been framed by the media; the governments; and Adani. My analysis has found that the severity and extent of the Carmichael

Project's harms to land, water, climate change, and the Great Barrier Reef have not been accurately presented or misunderstood to the public by these stakeholders. Using techniques of neutralisation and denial, the Carmichael Project has been portrayed as beneficial, necessary, and harmless and those who have publically challenged this narrative have been subject to ad hominem attacks of their credibility. Unfortunately, in a post-truth era, presenting misleading statements as facts is commonplace. However, it should not be normalised. Following a discussion of the state and corporation's techniques of harm minimisation is an investigation into the criminality of this behaviour.

Chapter Five

STATES AND CORPORATIONS IN DENIAL

“Any one of us through [the] media may influence the attitudes and actions of our fellow citizens” (Bernays 1947: 113).

“The art of PR is to ‘create news’; to turn what are essentially advertisements into a form that fits news coverage and makes a journalist’s job easier while at the same time promoting the interests of the client” (Beder 1997: 113).

“Intellectuals can play a considerable role by making more troubling information available to more people...This information should be regular and accessible: rolling in front of our eyes like the news headlines on the screens in Times Square” (Cohen 2011: 344).

Introduction

‘Post-truth’, defined as ‘relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief’, was the Oxford Dictionary’s 2016 Word of the Year; selected as a symbol of the times in the US (Brevini and Woronov 2017). While ‘post-truth politics’ may have had its epicentre in the U.S. in 2016, the framing of a statement to benefit a group or agenda has been used in justifications and denials long before the Trump administration. This phenomenon has been studied in sociology and criminology as ‘techniques of neutralisation’.

In fact, one of the issues in dealing with crimes of the powerful lies in the denial of the crimes’ existence by the perpetrators. How states and corporations cover up harmful and criminal acts and how they defer responsibility for these acts are important topics of investigation. Researching and understanding the scripts that allow for the culture of denial to exist in plain sight allows for the theorisation of potential avenues of addressing it.

It is important to note that the exact thought processes behind the statements made by Adani and government stakeholders being analyzed are not actually known. As the discussion in this chapter will demonstrate, an assertion of denial could be true and made in *good faith*; the assertion of denial could be a deliberate *lie* told to deceive; or the assertion of denial could be *neither* a matter of telling the truth nor intentionally telling a lie (Sykes and Matza 1957). This suggests a possibility, where clear evidence to the contrary is lacking, that those who argue for the feasibility or benefits of the Carmichael Project believe that what they are saying is true. Human conceptions of what is true; what is right and wrong; and what is a benefit versus a cost are highly variable and thus someone who is “pro-Carmichael Project” may have a different understanding of the world as someone who is against it. For this reason, the following discussion of techniques of neutralisation and denial must be read as a sociological analysis – not a psychological one.

Cognitive psychologists have dealt with the subject of denial. Of particular interest to them, is the “denial paradox”: “in order to use the term ‘denial’ to describe a person’s statement ‘I didn’t know’, you have to assume that he or she knew or knows about what it is he or she claims not to know (otherwise the term ‘denial’ is inappropriate)” (Cohen 1993: 105). This psychological focus of denial therefore is primarily concerned with questions of self-knowledge (i.e. in the ways they are protecting themselves from “true” knowledge of the harm they are causing) and self-deception (i.e the ways in which “deniers” are operating out of established cultural frameworks).

However, this thesis is less concerned with matters of personal belief than structural interests. What individual government Ministers and Adani Executives ‘really believe’ is in fact irrelevant to analysis of their public actions. What is required is a theory of ‘interests’ (as reflected in the state-corporate crime paradigm) insofar as it is the organisational setting (whether government or corporation) which to a large extent dictates individual agency. As Bakan (2004: 50) astutely observes:

The people who run corporations are, for the most part, good people, moral people. They are mother and fathers, lovers and friends, and upstanding citizens in their communities, and they often have good and sometimes even idealistic intentions. Many of them want to make the world a better place and believe their jobs provide them the opportunity to do so. Despite their personal qualities and ambitions,

however, their duty as corporate executives is clear: they must always put their corporation's best interests first and not act out of concern for anyone or anything else (unless the expression of such concern can somehow be justified as advancing the corporation's own interests). The money they manage and invest is not theirs. They can no sooner use it to heal the sick, save the environmental, or feed the poor than they can to buy themselves villas in Tuscany.

The following analysis of techniques of neutralisation is not of the psychological dynamics of the problem – it does not locate the issue of denial of the Carmichael Project's harms in the state of mind of the wrongdoers but rather in the public sphere. The facts regarding the Carmichael Project and its potential ecocidal harms are both private and public knowledge. Neutralisation comes into play when the potential harms are acknowledged – as the discussion will show they have been; in Adani publications, court documents, etc. – but either presented as justified or reframed.

This chapter provides a discussion of Cohen's concept of denial, which expands Sykes and Matza's 'techniques of neutralisation' to include crimes of the powerful. A description of the various strategies employed by states and corporations to deny environmental problems such as climate change, stifle environmental discourse and counter environmental activism follows.

Techniques of Neutralisation and State Denial Theory

The concepts of 'techniques of neutralisation' were first developed in the 1950s and 60s. In their studies of juvenile delinquents, Sykes and Matza (1957) developed a classification of five methods actors employ to justify their morally questionable or illegal activities. Techniques of neutralisation can be understood as rhetorical devices used to deny or neutralise harm *before* the act in order to make delinquency possible and/or *after* the act, in order to shield the perpetrator from blame. Sykes and Matza's analytical framework contains five types of denial, as described in Table 5.1:

Table 5.1 Sykes and Matza's Techniques of Neutralisation

Technique of neutralisation	Description
Denial of responsibility	The offender had no control over the action
Denial of injury	Despite its illegality, the action did not cause any harm
Denial of the victim	The injury is not wrong given the circumstances of the action; The victim was the original wrongdoer and the action was the rightful response
Condemnation of the condemners	The motives and character of the critics are to blame for the action being deemed "wrong"
Appeal to higher loyalties	The action was justified based on allegiance to a cause, group, or other loyalty

This framework has also been used to examine the actions and denials of 'public and political atrocities' committed by states (Whyte 2016). In his article, "Human Rights and the Crimes of

State: The Culture of Denial,” (1993) and later in his book *States of Denial: Knowing About Atrocities and Suffering* (2001) Cohen discovered these five accounts of denial presented by individuals are similar to accounts of denial presented by government representatives in official statements; thus linking individual denial to organisational denial.

Statements of denial assert something either ‘did not happen, does not exist, is not true, or is not known about’ and contain a number of ‘elements’ (Cohen, 2001:3): organisation (i.e. personal, cultural or official denial); time (i.e. historical or contemporary denial); agent (i.e. victim, perpetrator or observer); and space and place (i.e. your own or elsewhere).

Further, the psychological status of a statement of denial depends on whether the denial is conscious or unconscious: the assertion could be true and was made in *good faith*; the assertion of denial could be a deliberate *lie* told to deceive; or the assertion of denial could be *neither* a matter of telling the truth nor intentionally telling a lie. In the third instance, the assertion of denial is not wholly deliberate and the status of ‘knowledge’ of the truth is not wholly clear.

Literal, interpretive and implicatory denial

According to Cohen (2001) there are also three possibilities regarding the content of an assertion of denial or the *what is being denied*: literal denial, interpretive denial, or implicatory denial.

‘Literal denial’ is the type of denial that is defined as ‘the assertion that something did not happen or is not true’ (Cohen 2001: 7). Literal denial rejects the fact or knowledge of the fact, but there is an ambiguity about how conscious or unconscious the knowledge is; “how much we are aware of what we say we are unaware” (Cohen 1993: 109). This, according to Cohen (1993) suggests the possibility of simultaneously knowing and not knowing. Literal denial is not a simple lie where the facts are accessible but the conclusion is knowingly evaded. It is the situation where “we are vaguely aware that we choose not to look at the facts without being conscious of what it is we are evading” (Steiner 1985: 161). Whether it is a child denying that he drew on the wall; a politician denying using public funds for a private vacation; a government denying an atrocity; or a corporation denying an environmental catastrophe, the script is always the same: ‘*x is not true.*’ These assertions that refuse to acknowledge the facts can be made in good or bad faith and can be true (‘genuine ignorance’, as Cohen calls it) or blatantly untrue (deliberate lies) or unconscious defence mechanisms (Cohen 2001). In the context of state-crimes, Cohen (1993: 103) writes:

On one level, this [denial] is nothing more sinister than a Western ethnocentrism preoccupied with its own national concerns and secure in the great achievement of liberal capitalism; the separation of crime from the state. On another more interesting level, this stems from the universal tendency to see only what is convenient to see.

‘Interpretive denial’, on the other hand, is the type of denial that involves admitting the facts (the act) but denying the interpretive framework placed on those facts (Cohen 2001). Interpretive denial reframes or declassifies a specific accusation of harm into something else. Multiple definitions of harm (for example, a legal definition of a harmful act versus a societal or cultural understanding of a harmful act) allow the concept to be to fit an interpretation of an event.

An example of interpretative denial can be seen in the controversy surrounding the CIA's definition of water boarding as 'enhanced interrogation'. In 2014 former US President George W. Bush had admitted the raw facts, i.e. the CIA uses "enhanced interrogation techniques" such as waterboarding, but denied the interpretive framework placed on these facts, i.e. that enhanced interrogation techniques such as waterboarding are torture and therefore illegal. He maintained that, "this government does not torture people" (BBC News 2014). Article 1 of the UN *Convention against Torture* defines torture as "any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person" in order to get information. While the US is a signatory of the Convention, its legal code defines torture as an action "specifically intended to inflict severe physical or mental pain or suffering" and Amendment VIII of the US Constitution bans "cruel and unusual punishment." Whenever human rights groups or foreign governments claimed the CIA programme included torture, the US government under President Bush emphasised the distinction between "torture," which it accepted as banned in the US and by international law, and "enhanced interrogation techniques" (BBC News 2014). President Bush's defence, as an exemplar of interpretive denial, can also be described as "arguing semantics".

The degree to which an act can be defined as harmful is negotiated (or interpreted) through four main methods, according to Cohen (2001).

Euphemisms disguise harm with a more neutral label: torture becomes "enhanced interrogations."

Legalism allows for a harm's illegality to be disputed, allowing for loopholes and defences based on interpretation of the law: "this is not an example of torture since torture is illegal in our country" or "standards of prison conditions under *law x* do not apply during interrogation."

Denial of responsibility for the harm, the most common, presents harm as something that "just happened;" a bi-product of following orders rather than a premeditated action.

Isolation or the strategy of accepting responsibility for the harm but insisting on it being an isolated incident versus a systematic, routine, or repeated incident (Cohen 2001).

The script of each assertion of interpretive denial is: '*x is really something else.*'

Lastly, 'implicatory denial' is the type of denial that involves the rationalisation of a fact or event through the denial of its psychological, political, or moral implications (Cohen 2001). Implicatory denial does not attempt to deny the facts or the conventional interpretation of them. Instead, implicatory denials can be understood as rationalisations (Cohen 2001). A fact's or event's significance or implications can be denied through detachment and unconcern (e.g. 'I don't care what is happening on Manus Island'). Implicatory denial involves doing the 'right thing' with the knowledge of a harmful event or action. It involves matters of mobilisation, commitment, and involvement as there is a strong sense of inaction associated with denial (Cohen 2001).

One example of 'implicatory denial' occurs in the form of an attack on the victim's innocence. Attacking a victim's innocence can often be heard during sexual harassment or rape trials (e.g. sex workers are 'asking' to be harassed because of their promiscuity/attire/other personal choices) and victim-blaming occurs on a spectrum ranging from an appeal to righteousness (e.g. God's 'manifest destiny' for the US justifies the eradication of Native Americans during the country's westward expansion) to claims of necessity (e.g. if the police officer did not shoot the boy, he might have gotten shot himself). The script of each assertion of implicatory denial is: "*x is ok*"

One of these modes of denial is always present in the accounts people give for their actions or lack of actions regarding a disputed or potential harm.

Political perpetrator accounts

The reasons people give to deny an event or to rationalise an action (or inaction) are themselves not without reasons. Accounts are ‘not just another defence mechanism to deal with guilt, shame or other psychic conflict *after* an offence has been committed; it must, in some sense, be present *before* the act’ (Cohen 2001: 58). Accounts can either be justifications or excuses. Justifications involve accepting responsibility for an act but denying its negative or immoral classification (interpretive or implicatory denial) while excuses involve denying responsibility but admitting the act was “wrong” (literal or implicatory denial).

The value in these accounts, according to denial theory, does therefore not necessarily lie in the depicted events but in the way in which the person chooses to frame the events. As Maruna and Copes (2005: 239) state: the way in which an event is framed in an account bridges ‘the gap between action and expectation when an individual behaves in a way that is inconsistent with normative expectations’.

Political accounts of denial are usually interpretive denials as they often dispute the conventional meanings attached to offences and ‘try to evade moral blame and legal culpability (Cohen 2001: 77). This is not unlike ordinary civilian accounts of denial which also, generally speaking, do not try to justify their actions. Table 5.2 outlines Cohen’s techniques of neutralisation for perpetrator and official accounts. Two additional techniques of neutralisation are added to Sykes and Matza’s original framework: denial of knowledge and moral indifference.

Table 5.2 Cohen’s Techniques of Neutralisation

Technique of Neutralisation	Accounts given by state offenders	Condition allowing for accounts
Denial of responsibility: the offender had no control over the action	Obedience to authority: “I was just following orders;” or “I couldn’t have refused”	Authorisation of violence from legitimate authority, dehumanisation of victim, and routinisation of action
	Conformity: “You would have done the same thing in my situation;” or “Everyone else was doing it”	Pressures and demands of the situation convey a temporary loss of choice
	Necessity and self-defence: “Someone had to do the dirty work”	Panic, reflex action, or calculating odds

	Splitting: “My job is not a reflection of who I am”	Dissociation or compartmentalisation of self
Denial of injury: despite its illegality, the action did not cause any harm	Reframing injury and harm: “Look what they do to each other;” “This is the only language they understand;” or “I didn’t know they were suffering”	Victims belong to devalued group; or claims of being unaware of suffering
Denial of the victim: the injury is not wrong given the circumstances of the action; the victim was the original wrongdoer and the action was the rightful response	Blaming the other / victim-reversal: “In a just world, innocent people do not get punished arbitrarily”	“Just world thinking”
	Historical appeals/ righteousness: “They got what they deserve because of who they are”	Ethnic nationalism
Condemnation of the condemners: the motives and character of the critics are to blame for the action being deemed “wrong”	Double standards: “The critics are biased”	External critics
	No right to judge: “You have no right to interfere”	
	It’s worse elsewhere: “Everyone is doing this – why criticise us?”	
Appeal to higher loyalties: the action was justified based on allegiance to a cause, group, or other loyalty	Self-righteous justification: “The act was necessary to protect the state”	Nationalism/ ideology
Denial of knowledge: the offender did not know of the action	Virtual blindness: “I was unaware of what was going on”	Attention is brought to the action but little notice is taken
	Not needing to know: “The action was not important enough/ out of the ordinary”	Normalisation

	Not wanting to know refusing to know: “I don’t know and I don’t care”	Dismissing suspicions without investigation
	Compartmentalisation: “What you don’t know doesn’t exist”	Mentally blocking the truth
	Moral ambivalence, moral indifference or moral blindspot: “I ought to have known but I didn’t know”	Ambivalence between moral necessity to confront action and desire to deny knowledge of it
	Speak memory: “I suspected it but decided not to act or speak out”	Sensing the harms of an action and ignoring them by choice
Moral indifference: denial of moral codes’ legitimacy to justify an action	None given, since the act is not seen as wrong in the first place “I think what I did was right”	Ideological indifference

An event or action can be presented as harmless in many ways, as illustrated by the nuances in the accounts of denial above. The techniques of neutralisation developed by Sykes and Matza, and later by Cohen, have developed from an analysis of accounts given by individuals and states to deny harm. However, as Cohen linked individual denial to organisational denial, it can be expected that corporate officials and corporations also use techniques of neutralisation to deny corporate wrongdoing (Whyte 2016).

Corporate Personhood and Denial

Developing the concept of techniques of neutralisation to the illegitimate activities of a corporation began in the 1980s and 1990s (e.g. Box 1983; Benson 1985; Coleman 1987; Braithwaite and Fisse 1990). This body of research acknowledged that theories of individual action can also be applied to corporate action because corporations, too, can act, have intentions and commit crimes. Later, the organising framework of Sykes and Matza and Cohen was applied to corporate wrongdoing (Rosoff et al. 1998; Heath 2008; Piquero et al. 2005; Vieraitis et al. 2012; Fooks et al. 2012). There are three scripts of denial that are particularly available to corporations and, by extension, corporate officials: denial of responsibility, condemnation of the condemners and denial of the victim.

Corporate officials are primarily able to deny responsibility of their corporation’s activities due to the complexity of the corporate structure, which is designed to protect the human beings who run it from legal liability (Glasbeek 2002; Whyte 2016). By definition, the formation of a corporation refers to the creation of a legal entity that is *separate* from the people who make

up the corporation (Tombs and Whyte 2015). This allows the corporation as a whole to become the legal ‘person’ that is targeted by criminal prosecutions (Bakan 2004: 79).

‘Corporate personhood’, the concept that shields a corporation’s owners and investors from the corporation itself, establishes limited liability for corporate officials. Tombs and Whyte (2015: 84) describe how limited liability encourages risky business:

Investors can only lose the value of capital that they invested in the first place, so that, if the company incurs losses higher than the value of the sum invested, then the owners or shareholders bear no responsibility for this loss.

When a crime is committed, everyone working within the corporation can, to some extent, point their finger to shift the blame to someone else. The person who carried out the action can defer blame to the person who made the decision; the person who made the decision can blame the people who assessed the action, and so on (Heath 2008). In rare instances when there is a prosecution, this blame-shifting results in workers at the bottom being penalised while those at the top are able to keep their positions (and reputations) (Tombs and Whyte 2015). A corporation will also often cite the competitiveness of the marketplace as a reason for engaging in a harmful act. In order to “survive” the marketplace, the action becomes a “necessity,” mixing the denial of responsibility with a defence of necessity. For large-scale resource extraction projects such as the Carmichael, which require the cooperation of both corporation and government in order to proceed, state officials are also heard making this argument.

Since corporate personhood diminishes the potential *personal risks* involved in engaging in harmful behaviour for its owners or shareholders, the potential *benefits to the corporation* that can arise from those harmful activities are increased. The corporation’s benefits are eventually distributed among its shareholders, which translates to a potential for increased personal gain through risky behaviour. This transfer of risks and benefits grants a unique legal loophole for the owners or shareholders of a corporation: Although they are able to make decisions on behalf of their corporation, they cannot be held responsible for the effects of those corporate decisions.

Limited liability allows for the the corporation, rather than an individual or individuals, to be subject to criminal prosecutions. The ‘corporation person’ can ‘absorb the punishment, normally in the form of a fine, while its directors and senior managers are relatively rarely exposed to sanction’ (Tombs and Whyte 2015: 98). Responsibility is therefore evaded – legally – through the corporate structure. Adani’s corporate structure is deliberately complex and opaque. There are 26 Adani subsidiaries registered in Australia; 13 of these are ultimately owned through the Cayman Islands. Adani’s structure aids in the corporation’s ability to evade responsibility and has proven to have devastating effects, particularly when the corporation’s behaviour produces environmentally harmful effects (as described in Chapter Three).

Because of this denial of responsibility, harms that would result from a corporation’s actions are able to be externalised, or left out of the accounting of a project. Corporate officers are instructed to take account of short-term and long-term costs *to the corporation*, but not to anyone else, since a corporation must always act in ways that serve their own best interests, i.e., that maximize their shareholders’ wealth. Thus, the routine and regular harms caused to *others*—workers, consumers, communities, the environment—by the inevitable and acceptable consequences of corporate activity—are known as “externalities” (Bakan 2004). These side-effects, absent from corporate accounting, can include costs related to: GHG emissions causing climate change; air pollutants and toxic substances potentially effecting health; leachate to soil

and water; and the impact of facilities on the local environment such as noise and smell (Tombs and Whyte 2015). Externalities do not need to be costed on the corporate balance sheet because only the profit is recorded, excluding the costs to others (Bakan 2004). The next chapter will demonstrate how the externalised harms of the Carmichael Project, identified as ‘scope 3 emissions’, are the costliest. Since Scope 3 emissions do not have to be reported under Australia’s National Greenhouse and Energy Reporting (NGER) scheme, mining projects such as the Carmichael can get away with claiming smaller amounts of GHG emissions than will actually be produced. 98% of GHGs from the Carmichael Project are thus legally left out of carbon accounting.

Techniques of neutralisation and denial of harm have since been applied to corporate wrongdoing in literature on business ethics and corporate social responsibility (Piquero et al. 2005; Heath 2008; and Fooks et al. 2012). Specific events that cause environmental harms – climate change in particular – also require justifications for the drift between deviant values and social norms (Enticott 2011).

Corporate climate change denial

Talbot and Boiral (2014) were among the first to explore the ‘justifications and impression management’ techniques that industrial (mining, aluminium, pelletizing, petrochemical, and metallurgy) companies use to rationalise their impacts on climate change. They outline six strategies used by companies, specifically large GHG emitters, for climate change impression management:

Table 5.3 Corporate Techniques of Climate Change Neutralisation

Technique of neutralisation	Description
Self-proclaimed excellence	Company claims to be best in field in order to distance themselves from competitors’ practices
Promotion of a systemic view	Company claims it should be judged not only by environmental performance, cites economic and social contributions
Denial and minimisation	Company minimises its impact on GHG emissions by emphasising low contribution of industry to overall emissions; and/or comparing with larger footprint of another industry
Denouncing unfair treatment and deceptive appearance	Company claims condemners have insufficient knowledge of industry processes to evaluate company’s carbon footprint
Economic and technological blackmail	Company claims to be victim; threatened by government action to reduce GHG emissions
Blaming others	Company justifies its activities by emphasising other, “more polluting” sectors

These techniques of neutralisation identify the communication strategies companies use to justify their impacts or poor environmental performance, specifically in relation to climate change. Talbot and Boiral (2014) found the promotion of a systemic view to be one of the most

frequently used climate change specific harm neutralisation technique. Companies that use this technique often cite their socio-economic contributions as a rationalisation for the harm they produce:

Yes, we emit a lot of GHGs. However, there is more than just the question of the environment. This is the very principle of sustainable development. In judging our performance, one should not limit oneself to the environmental aspects. We contribute enormously to the economic development of the region.

This script mirrors that of corporate social responsibility (CSR), or the idea that corporations will shift away from profit maximisation for shareholders within the obligations of law to responsibility to a broader range of stakeholders, including community concerns of environmental protection and ethical and legal accountability (Tombs and Whyte 2015). While there are opportunities for NGOs to work with companies to improve environmental practice (Gilmour 2002; White 2008), in practice, CSR involves the use of a 'triple bottom line' of economic, social, and environmental performance when considering a company's or project's sustainable development, allowing for environmental harm to be neutralised or devalued in light of social or economic benefits. The effects of a large-scale mining operation's environmental harm, for example, can be (interpretively) denied as minimal in scope compared to the mine's economic benefits.

Multibillion dollar energy corporations have actively sponsored the voices of opposition to global warming (Goldenberg and Bengtsson 2016). These corporations rely on politically conservative think tanks to disseminate their claims via non-peer reviewed books and articles passed off as powerful 'science' in a persuasive attempt to control, censure and neutralize the overwhelming caucus of reputable science identifying the undeniable existence of global warming and its devastating effects (Dunlap and Jacques 2013). A number of influential 'think tanks', including the Cato Institute, American Enterprise Institute and the Heartland Foundation openly attack climate change research as the 'climatism cartel' accusing pro skewing government prioritizing and funding academic research for pro climate change outcomes (Bohr 2016).

In order for the corporation's desired image to reach the public, a means of relaying the message is required. The 'mediascape' – all of the institutionalised forms of media we use and create to communicate; the 'global cultural flows' of information and images that connect us and shape our understanding of the world – although not formally recognised as a part of the political system, has significant influence on society (Appadurai 1990; Clifford and White 2017). The mediascape plays an active role in shaping the public's beliefs on what is fact versus fiction through the stories they choose to report (versus the stories they choose to omit), how they report the stories, and the sources they rely on for these stories. For example, in the U.S., where approximately 70% of the public believe in human-induced climate change and 75% support laws to reduce carbon emissions (Marlon et al. 2016; Popovich et al 2017), the Trump administration has made it more difficult for climate change evidence to reach the public by deleting any reference to 'climate change' from the US Environmental Protection Agency website (Griffin 2017). Climate change denial is most threatening when it comes from powerful elites, since 'global publics are unwittingly conditioned to comply and conform to governing authorities through historical, institutional and cultural notions of trust' (Walters 2018).

Corporations, governments, and environmentalists alike utilise the media's position of trust and reach within a society in order to frame events and promote their agendas. The growth of

the public relations industry and its relationship with the media illustrates the evolution of corporate, government, and environmental strategies to communicate their views as reality to the public citizen.

Public Relations and the Media

Psychoanalyst Sigmund Freud first developed the concept of denial. His nephew, Edward Bernays, first developed public relations. For the purpose of this thesis, 'public relations' is defined as 'the process of establishing and maintaining beneficial relations between an organisation and the publics on whom it depends' (Hallahan 1999). Referred to in his obituary as 'the father of public relations,' Bernays believed it was possible to mould the public's opinion through the use of public persuasion campaigns. In an essay titled 'The Engineering of Consent,' Bernays (1947: 114) described the relationship between democracy and public relations campaigns:

Any person or organisation depends ultimately on public approval, and is therefore faced with the problem of engineering the public's *consent* to a program or goal...The engineering of consent is the very essence of the democratic process, the freedom to persuade and suggest. (emphasis added)

The essay describes two main 'consent-engineering' techniques that have subsequently become central in today's public relations industry and were key in the debate surrounding the Carmichael Project: the press release and the use of 'third-party experts' (Herman and Chomsky 1994). When strategically released to the public, press releases and expert opinions can successfully influence how an issue is understood. The strategy, according to Bernays (1947), lies with the timing and content of these techniques. Public relations firms seek to plan events that are then projected through various communication systems to deliberately influence the public's ideas and actions at a given time. In other words, public relations teams seek to create news. Therefore, in analysing a press release or statements made on behalf of a corporation (written by the corporation's public relations team), it is important to keep in mind that no news story is coincidental in its timing – the *when* of the publication is an essential part of the *what* is being reported.

Public relations firms have been increasingly focusing on environmental public relations, or greenwashing, according to Beder (1997), to advance their clients' eco-friendly image and counter environmental activism. Greenwashing developed in the 1960s as the corporate response to an increase in public awareness of environmental issues, resulting from three factors. First, the dissemination of images depicting industrial accidents and environmental disasters through the media tilted public perceptions towards green advocacy. Second, information such as emissions data were – for the first time – legally required to be made public, which further threatened a corporation's reputation. Third, polls revealed a majority of the US population considered themselves environmentalists who were generally distrusting of business to protect the environment (Beder 1997).

Environmental public relations involves the use of online and print media, grassroots organisations and investigation into activists and journalists to influence a business' reputation.

Framing

The main avenue of communicating information to the public has always been through the commercial media. While print newspaper readership has declined in recent years as a result of the proliferation of social media and other online news sources, newspapers still remain in high circulation. In Australia, for example, the Australian Bureau of Circulations (ABC) Paid Media Audit Data reported over 1.3 million paid media distributions of the weekday print of twelve newspapers (The Australian Financial Review, The Australian, Canberra Times, The Daily Telegraph, The Sydney Morning Herald, Northern Territory News, The Courier-Mail, The Advertiser, The Mercury, The Age, Herald Sun, and The West Australian) between July and September 2016. Of these twelve newspapers, four are owned by Fairfax Media, seven by News Limited, and one by Western Australian Newspapers, demonstrating that the gatekeepers of Australian communication are concentrated between a small number of corporations.

These corporations, with a monopoly over communication, are able to reach millions of people – both in Australia and across the world – every day. It is their role, as the public's source of information, to filter information in order to present it in the form of a news story for an audience. According to Cohen (2011: 170-171), there are three filter 'models' that the commercial media follows when it absorbs information, processes it, and then represents it to the public: correspondence, arbitrariness, and pattern:

In the correspondence model, selection is rational and objective. It provides an accurate and reliable reflection of reality, selecting events only according to their seriousness.

In the arbitrariness model, selection is wholly irrational and unpredictable. The end result is determined by chance and contingency.

In the pattern model, selection is structured by criteria extrinsic to the event's seriousness: for example, the victim's ethnic group, the perpetrators' identity, or our social distance from the event.

Each of the models allows for the selection of a story to be based on an unwritten list of criteria, based on what is proven to bring in the highest ratings to the news corporation. After all, as a corporation the end goal is maximising profits. Stories that are more likely to be selected are those that concern Western and American interests; are negative, graphic, and sensational in nature; whether the event matches the society's political interests; and whether or not the story is already a story (Beder 1997).

The relationship between public relations firms and these news corporations is one in which the PR firms aim to control – if not *become* – the media's filter. Framing, a property of a message, limits or defines the message's meaning by shaping the inferences that individuals can make about the message. Through processes of inclusion, exclusion, and emphasis, framing helps shape the perspectives through which people see the world (Hallahan 1999). Framing is also connected to the psychological reasons that people use to examine information, make judgements, and draw inferences around the world around them. For example, describing illegal drug use as a 'public health issue' versus a 'criminal justice issue' shapes the way the problem is and will be discussed (Altheide 1997). Framing choices can thus limit the information available to audiences who are trying to understand something they have not personally experienced (Clifford and White 2017).

There are a number of different types of news framing, according to Hallahan (1999). For this thesis, the focus will be on valence-framing, semantic framing and story framing, as these will be shown to be the most prevalent amongst coverage of the Carmichael Project (see next chapter).

Valence-framing involves the use of frames that represent alternative valencing of information (i.e., putting information in either a positive or negative light). A study by Bizer et al. (2011) revealed valence-framing appears to be a low-effort way to impact multiple features associated with strong attitudes. For example:

Simply framing a person's attitude negatively (i.e., in terms of a rejected position such as anti-Democrat) led to more resistance to an attack on that attitude than did framing the same attitude positively (i.e., in terms of a preferred position such as pro-Republican) (Bizer et al. 2011: 59).

Valence-framing thus influences the 'attitude certainty' and behavioural intentions that are consistent with a given attitude. In the environmental debate, valence-framing can be found in news stories that put Green political candidates or environmental activists in a negative light (i.e., as 'anti-jobs').

Semantic framing on the other hand, involves a simple alternative phrasing of terms and is used to focus on particular attributes that might be flattering or derogatory in order to 'be advantageous or disadvantageous to message sponsors in persuasive communication' (Hallahan 1999: 212). This type of framing relies on semantic differences related to making what is fundamentally the same choice, such as describing beef as '75% lean' or '25% fat'.

Story framing involves first selecting key themes or ideas that are the focus of the message and, second, incorporating a variety of storytelling or narrative techniques that support that theme (Hallahan 1999). This type of framing subtly suggests how a text or event should be interpreted and can include the presence of hypotheses that explain relationships; metaphors and similes; provocative language; and catchphrases.

Valence, semantic and story framing operate by biasing the cognitive processing of information by the audience. Contextual cues guide decision making and inferences made by the receiver of the message. At its core, framing aims to provide the context of the information. This emphasis allows framing to be used in multiple situations, summarised in Table 5.4 below:

Table 5.4 Framing in Public Relations

What is framed	Description
Situations	Relationships between individuals in situations found in everyday living and literature.
Attributes	Characteristics of people, places, and things are accentuated while others are ignored, thus biasing the processing of information in terms of focal attributes.
Choices	Posing alternative decisions in either negative (loss) or positive (gain) terms can

	bias choices in situations involving uncertainty, sometimes creating false dilemmas.
Issues	Social problems and disputes can be explained in alternative terms by different parties who vie for their preferred definition of a problem or situation to prevail.
Responsibility	Individuals attribute cause of events to either internal or external factors. People portray their role in events based on their self-image in ways that maximize benefits and minimize culpability. People usually attribute causes to personal actions rather than systemic problems in society.
Actions	In persuasive contexts, the probability that a person will act to attain a desired goal is influenced by whether alternatives are stated in positive or negative terms.
News	Media reports use familiar and culturally resonating themes to relay information about events. Sources vie for their preferred framing to be featured.

Source: adapted from Hallahan 1999: 210.

Risk

The concept of ‘risk’ provides a good illustration of the relationship between the media and PR firms. How risk is constructed by the corporation and communicated as truth by various journalists depends on how the concept is framing to fit a specific agenda and audience. Risk, as defined by the PR firm, is the chance of regulation and lawsuits to the company, rather than health and environmental hazards to the community. Communicating risk is the explaining of findings in company experts’ risk assessments as a way of correcting and shaping the public’s view of a proposed project’s risks. This is done through the use of a ‘risk communicator.’

A PR firm’s risk communicator’s main concern is to present a company’s endeavour as low- or no- risk to the press. In order to reduce the public’s fears and to gain acceptance for a company’s hazardous projects, concerned citizens are included into the decision-making process through the use of advisory boards with local residents and environmentalists. Company experts can then attend these meetings to ‘explain’ complicated risk studies as well as newspaper headlines to make their case. Risk communication also consists of putting a positive spin on any negative aspect of a company’s practices. Offering an alternate interpretation of a company’s bad environmental practices emphasises its positive practices. For example, if a corporation paid fines to the state’s environmental protection authority in an amount less than the previous year, it can claim a “positive trend in compliance.” Similarly, a company’s claim to the “levelling off of emissions” can be its way of reporting no improvement from the previous year’s emissions (Beder 1997).

A symbiotic relationship between PR firms and journalists is established out of the firm’s desire to create news and the media’s desire for access to relevant and exciting stories. Public relations

firms, through press releases given to journalists on behalf of corporate clients, can control how and when an incident is reported, shaping the public's agenda and opinion of the corporation.

Journalists are saved hours of time in investigation for a story to write about as the press releases offer regular and reliable information directly from the company itself. Not only do the press releases form the foundation of the journalists' articles, but they are often published unaltered and unaugmented with commentary. Studies have shown that the practice of passing a company's press release as a newspaper's own article does not vary among large and small papers; press releases are the basis for up to fifty percent of the news content of US newspapers (Beder 1997: 113). The PR firm benefits from this practice in three ways. By using the media, with its profile of 'independent truth seeker,' to put forward the corporate view, an otherwise blatant self-promotion is granted credibility with the public. By providing the press releases to journalists, PR firms turn journalists away from investigative reporting to a reactionary type of reporting. Journalists are less likely to look for their own stories if they are given content to report. By putting journalists in touch with 'experts' who offer 'impartial' authority, PR firms control not only the way in which the story is reported but who the public hears the story from as well (Beder 1997: 113). Together, news and PR firms are responsible for the construction of social reality. Media framing can be viewed as 'a tool of power that can be used in the struggle to define whose view of the world will predominate' (Hallahan 1999: 223).

Greenwashing

Painting a corporation as 'green' or environmentally conscious allows merely the promise of reform – without plans on how the change will be carried out – to be one of the key public relations scripts. Earth Day, for example, provides corporations with a yearly opportunity to publicize the future direction of their environmental contributions and reforms. Similar events such as awards ceremonies and fairs allow for the corporation to showcase their green credentials while building a relationship with environmentalists and the local community. Pearce (2012: 64) highlights the greenwashing of these events with his analysis of "Earth Hour," an initiative launched by the World Wildlife Fund (WWF) that emphasises the savings generated by everyone turning off the lights for an hour:

In Australia, WWF even made Anna Bligh, then premier of Queensland, an official Earth Hour Ambassador. When Bligh was not dimming the lights for Earth Hour, she ran the most coal-friendly jurisdiction on Earth, and boasted about how she was helping to 'supersize' the coal industry.

The PR industry categorises environmental activists into different groups based on how "radical" their views and actions are, in order to determine the proper way of dealing with them. For example, the PR firm Mongoven, Biscoe, and Duchin categorise activists as either radicals, opportunists, idealists, or realists. Their formula for engineering consent, in Bernays' terms, is to, "isolate the radicals, turn the idealists into realists, co-opt the realists to support industry solutions and the opportunists will go along with the final agreement" (Beder 1997: 134). The most crucial part of this strategy, from the perspective of the PR firm is the isolation of the radical environmentalists in order to 'divide and conquer'. Beder (1997: 135) illustrates how climate change scientists are able to be dismissed:

[I]f a NASA scientist concludes that global warming is underway and another scientist questions this, the NASA scientist is seen to be the more extreme of the two, even if her

assumptions are more conservative, because her conclusion ‘deviates from normative expectancies’.

Advertisements can also advance a corporation’s image as one that is green; one that can be trusted in local communities to carry out a project without harm to the environment (Bouwer 2016. “Advocacy advertisements” sell political beliefs, appealing to the public as citizens rather than consumers (Beder 1997: 185). Corporations can use advocacy advertisements to claim that their business practices align with the public’s interest. Environmentalism, a major theme of advocacy ads, takes three distinct forms, according to Beder (1997: 187). Advertisements can exaggerate industry efforts in controlling environmental harms such as pollution. For example, a company may boast of ‘voluntary’ efforts that in reality may have been government mandated or compare their pollution to other ‘more harmful’ industries. Advertisements can also minimize the adverse consequences of pollution while overstating negative economic consequences on jobs. This type of claim is often seen in the beginning stages of a project (for example, a mining project) to dispel arguments that the project would do more harm than good and at the end of a project’s term, to congratulate the company on its successes. Advertisements may also suggest that individual consumers can solve the problem through their voluntary actions. This strategy is often seen in Earth Day and similar campaigns promoting ‘conscious consumerism’.

Advocacy ads appear on all forms of media and make up what Newt Gingrich called a “Communications Plan” in 1991. The Communications Plan’s goal was to “create a propaganda machine for widespread distribution of broadcast, print, and computer communications to supply our activists and potential followers with ideas, information and rhetoric” (Beder 1997: 196). This has resulted in a right-wing media network that influences the mainstream national media’s agenda by ensuring the people whom journalists seek for interviews, statements, and broadcasted appearances are corporate-funded. A study of the Public Broadcasting Service in America, which has been criticized by conservatives for its liberal slant, revealed that the majority of its programming used corporate sources and government spokespersons, rarely inviting activists such as environmentalists to state their views. Another study on US media coverage of environmental issues revealed that mainstream environmental reporting did not ‘take its cue’ from environmentalists but instead relied on the government, corporate, and non-scientific academic establishments (Beder 1997: 198). In Australia, a journalist’s career is likely to evolve into a career as press secretary to politicians. This revolving door between media and government and media and public relations firms severs the possibility of news reporting that is objective in nature and critical of the establishment. As a result, environmental problems are reported inaccurately (Jain 2012). Media outlets, in seeking to provide entertainment while also attracting viewers for advertisers, ignore issues that most concern those in lower socio-economic classes who lack purchasing power. Environmental issues such as global warming disproportionately affects the global poor and working classes, yet is reported superficially: the focus is placed on individual events rather than the systematic causes of the problems, with an emphasis on the costs of environmental measures and individual action to remedy the issue (Beder 1997).

SLAPPs

Every year thousands of lawsuits totalling millions of dollars are filed against individual citizens and environmental groups for speaking out against corporations (Beder 2004). The targets of these suits are, in effect, penalized for utilizing their democratic rights—the right to organize, petition, and engage in public discourse and peaceful demonstrations—because

powerful corporations see this behaviour as detrimental to their business and profits. Pring and Canan (1996) have labelled these law suits SLAPPs: Strategic Lawsuits Against Public Participation. Corporations, knowing that they cannot sue people for exercising their democratic rights, file SLAPPs on the basis of technical legal grounds (such as conspiracy) in order to stifle discourse and deter future opposition on a local public issue (Pring and Canan 1996; Ogle 2009). It is the cost of the court case, in both time and money, which is most detrimental to the individual or environmental group. The defendant finds him or herself having to take a hiatus from speaking out against the corporation or proposed harmful act in order to hire a lawyer, prepare arguments, and appear in court. Although these cases are rarely argued successfully by the corporation that filed the writ, the corporation still “wins” if the defendant stops engaging in the so-called “detrimental” activism. Even if the SLAPPs do not go to trial, the objective of scaring off potential opponents can be achieved merely by the threat of the court case (Beder 2004).

One example of a SLAPP in Australia is the 2004 Gunns Limited writ. Gunns Limited was Australia’s largest forest products company at the time, owning more than 175,000 hectares of land. The main contributor to the \$606 million company was the export of woodchips—most coming from old growth forests—to Japan to be made into paper products. Recognising the scope of the environmental damage caused by this trade, activists from different environmental organisations throughout Australia and Japan collaborated in a strategy of dissent to prevent future destruction of old growth forests by Gunns. The Wilderness Society, Japan Tropical Forest Action Network, and Greenpeace Japan, among others, launched a multi-pronged campaign against turning old growth forests into woodchips. Through sit-ins and protests at the logging sites, for example, the activists disrupted “business as usual” (Salama and White 2017).

While the categorisation of activists allows PR firms and corporations to engineer the public’s consent for a project, SLAPPS work to stifle the public’s dissent. Intimidating civilians from taking advantage of their democratic right to protest and criticise government benefits the corporation and government, in that both entities can claim little to no resistance and widespread support for their endeavours. Gunns responded with a 216-page writ that referred to the direct action taken to stop logging as “guerrilla activities” (*Gunns v Marr 2006*) The “Gunns20”—that is, 20 targets ranging from individual activists that included Green MPs Bob Brown and Peg Putt through to environmental groups such as The Wilderness Society, were accused of conspiring to injure and damage Gunns by interfering with the company’s trade and business through unlawful means (Salama and White 2017). The company argued the multiple direct and ideological campaigns launched by these 20 individuals and groups were detrimental to the company. The timber company sued this group of environmentalists, protesters and Green MPs for AUS\$6.3 million.

The targets of these lawsuits are rarely radical environmentalists or citizens with an activist history but rather ordinary middle-class citizens who are concerned about their local environment. This is intentional, as ordinary citizens do not have the support from large environmental organisations (in finances or ideological commitment), have the most to lose from the threat of a lawsuit (in the form of assets that can be seized), and are therefore easily intimidated by the possibility of legal actions. For a small amount of money, anyone is able to put up a statement of claims against another person, whether or not there is any evidence to support their case (Beder 2004).

“Ecoterrorism”

From an activist perspective, a number of protest techniques can be used to inform the public about the disastrous consequences of a corporation’s or government’s actions, such as public displays of dissent, litigation and investigation of corporate wrongdoing (Salama and White 2017). Corporate bodies and governments, emphasising threats to jobs or to ‘national security’, label some of these protest activities as ‘ecoterrorism’ and those who participate as ‘extremists’ or ‘ecoterrorists’ (Hasler et al. 2019). For example, the United States’ FBI released a memo titled ‘The Threat of Eco-Terrorism’, in which Domestic Terrorism Section Chief James F. Jarboe defined eco-terrorism as ‘the use or threatened use of violence of a criminal nature against innocent victims or property by an environmentally-oriented, subnational group for environmental-political reasons, or aimed at an audience beyond the target, often of a symbolic nature’ (FBI 2002). This definition is contradictory to a leading internationally accepted definition by the International Policy Institute for Counter-Terrorism, which emphasises that the ‘targets of terrorism are civilians’ and terrorism ‘is an act purposely directed against civilians’ (Gristmill 2005).

A state’s usage of terms like ‘eco-terrorism’ and ‘eco-terrorists’ is linked to its level of development. Countries with large military presences such as the US and the UK present the issue of global security as an imperative. Environmental harm issues are therefore subsidiary considerations. Activists that oppose the legitimated and legal actions of powerful elites in such affluent nations are thus more likely to be targeted as eco-terrorists. The label attached to these protestors mark them as threats to capital accumulation and the interests of the powerful and subject them to spying, threats, and legal action against them (Hirsch-Hoefler and Mudde 2014).

Along with classifying environmentalists into various groups, local residents are also categorised by PR firms in order to target those that can be persuaded and isolate those who cannot. Scheduling public meetings to discuss a proposal allows the PR firm to provide a structured environment for public involvement, one in which they control the form and discussion that takes place. Environmental allies are often invited to the meetings while dissenters are labelled as ignorant or having vested interests.

The rise of the public relations industry and its concentration on environmental issues has ushered in an era of unprecedented state-corporate collusion, as facilitated by the media. Through the media’s regurgitation of press releases and advertisements written by PR firms claiming their corporate client’s green credentials, environmental harms are neutralised and denied to the public. The greenwashing of the public agenda can be countered through the exposing of corporate myths and techniques of neutralisation.

Conclusion

Criminologists are not alone in studying techniques of neutralisation. As this chapter has shown, governments and corporations have also studied and utilised the many scripts of denial. When a controversial project, such as a large-scale mining proposal, faces public scrutiny, those in favour of its approval have at their disposal a set of response strategies to combat arguments against the proposed action. This list is composed of narratives, modelled on successful neutralisation techniques, that have utilised by previous corporations faced with similar challenges. While it is difficult to completely deny the harm caused by coal mining in a world that has become increasingly aware of the dangers of climate change, the use of these

techniques of neutralisation and denial present a false debate: scientific facts, such as those surrounding fossil fuels' contribution to climate change, are appealed with emotional claims, suggesting that facts are merely opinions by the 'opposing side.' Adani and the Australian Government use these tactics to rationalise the approval of the Carmichael Project, neutralise the Project's harm, and maintain their corporate image at the expense of those whom they cast as the other; environmental activists.

What follows is an analysis of the specific accounts that Adani representatives and members of the Australian government have made to promote and defend the benefits and environmental sustainability of the Project and to deny the environmental harms that would result from the Project. The quotations evidencing neutralisation and denial were taken from legal submissions made under oath by Adani and the Australian government, interviews and reports by various online newspaper articles, and the websites of the stakeholders. An analysis of the language used in these accounts confirms that the denials follow the same scripts as previous denials for mining projects and suggests that those who use these scripts are aware of the harm that claim not to recognize.

Chapter Six

DENYING THE HARMS OF THE CARMICHAEL PROJECT

“But the coal will come from different countries without our environmental record, coal that is of lower quality ... that will burn more carbon-dioxide emissions. This project is not just pro-development, it’s not just anti-poverty, it’s also pro-environment as well. – Matt Canavan” (The Australian 2016).

“With regard to the impacts of the emissions caused by the use of the coal from the mine, recipient nations will need to meet their obligations under the United Nations Convention on Climate Change” (Department of Energy and the Environment 2015).

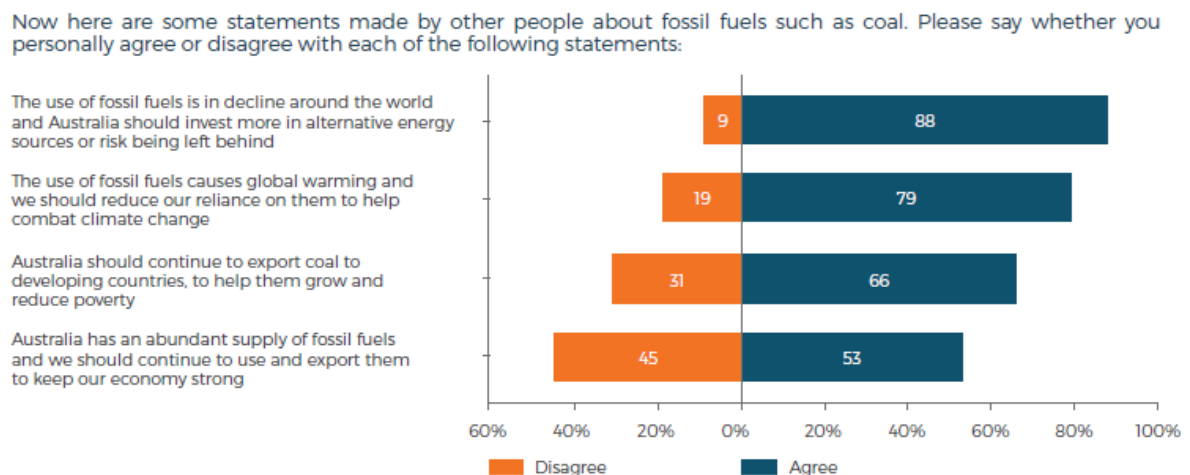
“The project is over 300 kilometres inland from the Queensland coast in a dry and dusty region of outback Queensland. Mining will not have any direct impacts on the Great Barrier Reef” (Department of Energy and the Environment 2015).

Introduction

A decision to build a mega-mine should depend on the facts, with an analysis of the known harms weighed against potential benefits. Yet the corporate stakeholders and government officials who publicly support the building of the Carmichael Project have used a particular set of scripts to deny the Project's environmental harms, skewing the conversation from one of fact vs. fiction to one of rhetoric and emotionally-charged allegations.

The 2016 Lowy Institute poll shows that Australians generally agree that the use of fossil fuels is in decline and the use of fossil fuels should be reduced in order to combat climate change (see Figure 6.1). Regardless of this shared sentiment, however, Australians would also most likely agree with Senator Canavan, who defended the coal mining industry against environmentalists who 'don't live in the real world' by stating that mining is 'just what we need to do to make a buck' (Stevens 2019).

Figure 6.1 Lowy Institute Poll on fossil fuels



(source: Lowy Institute 2016)

The mixed views as to the role Australians should play with regard to the use fossil fuels raises questions as to what the Australian public believes to be true regarding the relationship between fossil fuels and climate change and fossil fuels and their relationship to a country's economy. To understand why this confusion exists, this chapter examines the ways in which a demonstrably harmful project has been defended by those who stand to benefit from its approval and operation.

In the last chapter, techniques of neutralisation, the concept of denying harm, and greenwashing were discussed through the research of Sykes and Matza's, Cohen, and Beder. Using those concepts, this chapter provides an analysis of the scripts used to frame, neutralise and deny the harms associated with the Carmichael Project. Statements made by representatives of the Queensland state and Commonwealth governments and Adani stakeholders in legal submissions, media statements, and press releases are discussed. in order to answer the question: What techniques of neutralisation are employed by Adani and each level of government to deny/minimise/externalise the harm that will result from the approval and operation of the Carmichael Project?

Justifying the Carmichael Project

The ways in which the Carmichael Project is defended and championed by Adani and some Australian politicians at the state and federal levels takes many forms. There are instances of denial (i.e., of environmental harms such as contributions to climate change); and necessity (i.e., arguing the Project must be built not because it is not harmful to the environment but because of its various benefits to society); and claims of unfair treatment by those who condemn the Project (i.e., the environmental activists who have ‘shady’ motives or incomplete facts). This section organises these claims by the frameworks described in the previous chapter.

Defence of Necessity

Defence of necessity makes use of the “we have no choice” narrative in order to deem the proposed action obligatory, due to some outside variable. Defence of necessity assumes that the act will occur regardless of what any individual, corporation, or government chooses, thereby making it necessary in some metaphysical sense (Heath 2008). In defending the necessity of the Carmichael Project, the script is: ‘if *we* don’t get the necessary approvals for this project, someone else will.’ As former Australian Environment Minister Greg Hunt once stated, “If the Project is inevitable, Australia should benefit”. Adani Australia chief executive, Jeyakumar Janakaraj mirrored this claim when he said, ‘India is a large consumer of coal either way. If Australia doesn't produce and give India high quality and highly sustainable mining, it is going to rely on coal that comes from less reliable geographies.’

As is the case for most infrastructural projects, the argument for the Carmichael Project began with the claim of economic prosperity (i.e., the promise of jobs for the jobless and the economic growth of impoverished communities). A defence of economic necessity aims to turn the focus of the debate on the positive effects of the Project; and away from the criticisms involving the Project’s environmentally harmful effects. After this script was scrutinised by activists and politicians who oppose the Carmichael Project, the defence of (economic) necessity became a defence of moral necessity; arguing a moral imperative as the Project would not only bring jobs to Queensland, but also lift Indian people out of electricity-poverty.

Defence of necessity – both *economic* and *moral* necessity – in this case, are complementary. Together the scripts allow for the Carmichael Project to appear not only harmless, but also beneficial and inevitable. Framing the Project in such a positive light also sets up the possibility for the denial of responsibility of the harmful action later on: It cannot be proven that the corporation or individual “caused” the harm without causality. In other words, had the corporation not engaged in the harmful (but necessary) act, the harm would have still occurred – so the corporation cannot be responsible for the harmful act.

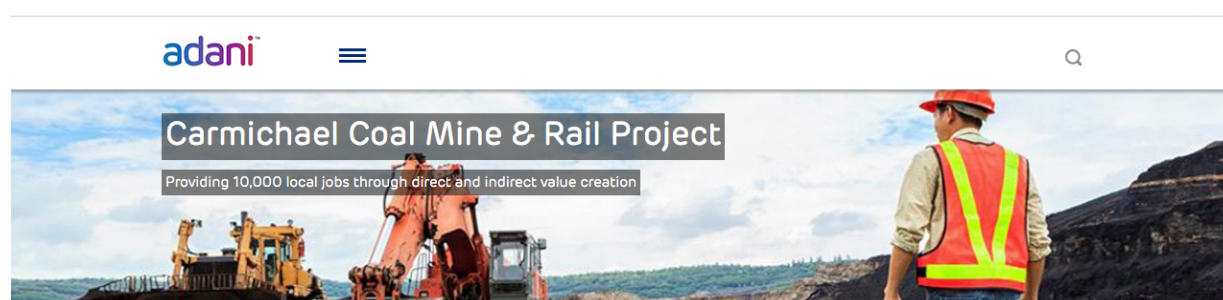
Economic necessity

Beginning in 2010 with Adani’s Initial Advice Statement, stakeholders (among them Minister for the Environment Greg Hunt, the Queensland Palaszczuk government, and Adani representatives) have claimed the Carmichael Project would bring thousands of jobs for Australians living near the proposed mining site. “Jobs will return to these small regional mining communities”, Anastasia Palaszczuk stated (ABC 2016a). In a time when 77% of Australians believe that ‘the economy’ is an important issue facing Australia (Lowy Institute 2016), the promise of thousands of jobs – especially to those living in rural communities – makes any project enticing for community support. Advertising large job numbers also makes

it difficult for politicians or citizens who are against the building of any new mines to justify rejecting the project. Speaking out or voting against the Carmichael Project becomes difficult to do without coming across as insensitive to the rural Australians who are told would benefit from the Project's approval and operation.

Although the number of jobs promised to Queenslanders by Adani gradually decreased, going from 10,000 to “over 5,000,” and later to a low of 1,464 jobs, the strength of the defence of necessity technique lies in the belief that these (inevitable) jobs from the (inevitable) project should not go elsewhere. For the people living in the communities surrounding the proposed mining site, the actual number of jobs is not as important as making sure that they are not ‘taken away.’ In fact, 10,000 is still the number of jobs promoted by Adani spokesmen – contrary to the findings in the Land Court of Australia in 2015 – and the number most often cited in relation to the Carmichael Project's economic benefits. Figure 6.2 shows the heading of the Adani Australia page boasting the creation of 10,000 jobs over a year after the court found the figure to be misleading:

Figure 6.2 Adani Australia website displaying inaccurate Carmichael Project job figures



(source: Adani Australia 2016)

Once again, the argument is that in order to survive the competitiveness of the marketplace – in this case the Australian, but also more broadly the global economy – Queenslanders should benefit from the jobs from the Carmichael Project. Otherwise, people elsewhere in the world will, to Queensland's detriment.

Yet, there is another component to the economic discussion that has been largely ignored by the state and corporation: the damage to the Great Barrier Reef as a result of the Carmichael Project will cost Queensland thousands of jobs in tourism and millions of dollars in tourism each year. There are currently 70,000 jobs directly related to the Reef, some of which will be lost if the Reef is significantly damaged by the Carmichael Project (Kenny 2016). According to a study conducted by The Australia Institute, 3.7 million international tourists visited Australia in 2015 – 1.6 million of these tourists spent most of their time in Queensland. The Great Barrier Reef also attracted 2.4 million Australians that same year (Kenny 2016). If the reef areas continue to bleach, surveyed potential visitors stated that they would be likely to decide to consider travelling to another country entirely, costing Australia an estimated \$1 billion per year in overseas income (Kenny 2016).

It is difficult to ascertain exactly how many jobs the Carmichael Project will bring for Australians for a number of reasons. First, news articles report disagreeing figures as a result of the ongoing debate between Adani and government representatives and environmental organisations. The issue with debating the economic economic benefits of the mine (through

job creation figures) is it allows for the underlying assumption that the Carmichael Project will not only be approved but will also bring *some* economic benefit to go unchallenged. The dialogue is focused on the degree of economic benefits, when it is not certain that the Project will be operational or beneficial in the first place. This is one example of how Adani and the Australian state can semantically frame and control the debate surrounding a Project to its own benefit.

An ABC article from December 2016 argues there is another reason why the job figure remains unknown: the use of automatic machinery on mining sites (Briggs and Riga 2016). After mining corporation Rio Tinto began the practice of using remote-controlled trucks in Western Australia, driverless trucks have increasingly been used at mining sites similar to the Galilee Basin. Adani has publically admitted to planning to use this technology to transport coal should the Carmichael Mine be approved. The announcement, not receiving much media coverage, was not well received by the The Construction, Forestry, Mining and Energy Union (CFMEU) in Queensland. Individuals who hope to benefit from the Carmichael Project's jobs and had organised to petition for the mine in the past have lobbied the Queensland and federal governments to end their tax rebate on diesel fuel for driverless trucks, hoping to force Adani to reconsider Queensland truck drivers instead. The conversation surrounding automated machinery strips the economic defence of necessity of another layer, revealing it to be merely a technique of neutralisation by the Project's stakeholders. Once all of the sides of the story have been considered and facts are separated from rhetoric, it instead becomes economically necessary for Australia *not* to permit the Carmichael Project from operating. The Project's actual economic effects include hurting the Queensland and federal tourism sector through destruction of the Great Barrier Reef and threatening more jobs involving the Great Barrier Reef than would be created through the mining of the Galilee Basin. Ben Oquist, the Australia Institute's executive director, states that the Queensland economy is 'modern and diverse,' with four in five people working in the service industry compared to only one per cent who work in the coal industry. Therefore, 'policies such as a moratorium on new coal mines can be implemented with a minimal effect on the Queensland economy' (Kenny 2016).

In addition to automated machinery replacing workers adding uncertainty around the actual number of jobs that the Carmichael Project would provide, the Australia Institute also found developing new coalmines in the Galilee Basin would cost approximately 12,500 jobs in existing coalmining regions: 9,000 jobs in the Hunter Valley in NSW; 2,000 jobs in Queensland's Bowen Basin; and 1,400 jobs in Queensland's Surat Basin (Smee 2018b). "Put simply, new mines, in new coal basins, destroy jobs in existing coal regions," the institute's director of research, Roderick Campbell stated, adding that is a view shared by many in the resources sector, with existing miners believing their interests are 'best served by restricting supply and maintaining near-record export prices' (Smee 2018b).

The International Energy Agency (IEA) has predicted the global demand for coal will be halved by 2040 and the 'boom years' for coal have passed. The Institute for Energy Economics stated that in light of the IEA's prediction, 'any moves to develop new coal resources would hurt existing miners' (Smee 2018b). Tim Buckley, an energy market analyst at the Institute for Energy Economics, said:

It's in our national interest to have an orderly retreat from coal. Ironically, it's in the interest of the incumbent industry too. It's in Queensland's interest not to flood the market...because the only result is it will drive prices down. That maximises

the royalties to the Queensland government. It maximizes the profits to coal companies. It also allows decent wages to the workers (Smee 2018b).

Once scrutinised, the argument for the economic necessity of the Carmichael Project is shown to be baseless. This argument represents a method of justifying the building of a new mine in order for the Queensland region to financially benefit through the creation of thousands of new jobs. However, as evidenced by the Land Court in Queensland and a number of independent studies, due to the increased use of automated machinery on mining sites; decline in coal value and demand; and threats to jobs in the Great Barrier Reef tourism sector and workers on existing mines in Australia, the Carmichael Project is not only *not* economically beneficial, but economically risky as well.

Moral necessity

As the purported economic benefits are revealed to be inflated or false, the Carmichael Project's stakeholders provided another type of justification. Moral necessity 'upgrades' the defence of the Project from an economic endeavour to one that is also philanthropic in its intent. Since the Project is ultimately measured by a triple bottom line that includes a social element, a moral defence of necessity helps stakeholders depict the Project as a 'sustainable development.' This was once stated by the chief executive of Adani Australia, who claimed the Carmichael mine "is mine is primarily aimed at bringing electricity to 100 million people in India, to improve their quality of life and indeed provide them with better health, education and employment opportunities". However, this argument has been mostly made by Australian Energy Minister Josh Frydenberg, who framed the Carmichael Project as an Australian humanitarian effort to lift millions of Indian people out of energy poverty. Both economic and moral defences share the strategy of shifting the conversation away from whether or not the mining endeavour should be approved to whether or not the job and electricity figures have been accurately reported – effectively denying the Project's harms.

Josh Frydenberg became Australia's Minister for Environment and Energy after Greg Hunt in July 2016. Unlike Hunt, who often cited the Project's economic necessity, Frydenberg instead chose a more emotional appeal; one that focused on the good the mine could bring beyond monetary profits. Frydenberg's frequent response to critics of the Carmichael Project involved the claim of a "strong moral case" for its approval – one that arguably mimicked former Prime Minister Tony Abbott's infamous "coal is good for humanity" line. Depicting the Carmichael Project as a humanitarian effort that would provide electricity to some million Indians for the first time can be understood as an example of valence-framing (i.e., the one-sided portrayal of the Project as good). Frydenberg was quoted describing the Carmichael Project by saying, "Most importantly of all it will help lift hundreds of millions of people out of energy poverty, not just in India but right across the world... I think there is a strong moral case here" (Kelly 2015). At another time, he stated, "I think there's a strong moral case here - I've just been at the G20 and at the APEC energy ministers' meeting and they pointed out that over a billion people around the world don't have access to electricity." Scrutinising the elements of this claim in order to separate fact from rhetoric reveals that attempting to repackage coal as the new industrial revolution is a technique of neutralisation and denial of harm.

First, the 'global poor' is the socioeconomic group that has been and will continue to be the first to suffer the effects of climate change. The situation taking place in India's neighbouring country of Bangladesh illustrates how climate change is already affecting the most marginalised people in the world. Over half a million people have been forced to move to the

country's capital city, Dhaka, after the flooding of their lands and homes. One-fifth of Bangladesh, which is located on the delta formed by some of Asia's largest rivers, is expected to be covered in water if sea levels rise by just 3.2 feet, less than 1 kilometre (Nikitas 2015). The Intergovernmental Panel on Climate Change (IPCC) estimates that in the next five years, 20 million people will be victims of climate-induced displacement and migration. This is more than the population of Los Angeles, Chicago and New York City combined (Shachi 2015). Not only is this mass migration of people from the outskirts of the country to the the already overpopulated and increasingly hostile capital city unsustainable for Bangladesh, it also has potential impacts for the rest of the world. Bangladesh is proof climate change is not something that future generations will face but a real issue for real people living today. The Carmichael Project's contribution of 79 billion tonnes of GHG emissions into the atmosphere would be disastrous for countries such as Bangladesh; millions of people will become climate change refugees, something the world is ill-prepared to handle. Frydenberg's claim is one-sided. He ignores the damage that the process of mining the coal – through GHG emissions and contribution to climate change – would have on the very population he claims will benefit from the mined coal.

Upon examining Frydenberg's claim further, it is found that the people he argues would benefit from the mined coal would actually not receive any benefits from the Project at all. Frydenberg suggests that there is a certain population (first, 'hundreds of millions,' then 'over a billion') of Indians living without electricity that will receive electricity from the coal mined in the Carmichael Mine. While it is true that there are many people living without electricity in India, Greens Senator Larissa Waters responded to Frydenberg's moral defence of the mine by pointing out that "four out of five people without electricity in India are not connected to an electricity grid so they can't access coal-fired power" (Aston 2015). The infrastructure needed to connect these people to electricity does not exist and, therefore, they will not be able to benefit from the mine's coal. The government of India has not made any statements in support of Frydenberg's claims. It has not announced the construction of any new electricity grids, specifically not in time for the Carmichael Project to benefit those who are living without electricity. Although Waters's statement suggests one out of five people without electricity in India is connected to an electricity grid, and therefore may benefit from the coal produced by the Carmichael Project, it remains unclear how the Indian government plans to use this coal. Furthermore, Indian analysts have found that expensive coal imports, such as those brought to India from Australia, increase the price of power due to the rise in electricity tariffs (Financial Express 2018). It is therefore unlikely that those living in energy poverty – those among India's lowest socioeconomic status – would be able to afford the high price of electricity even if the Indian government were to build an electricity grid and connect them in time for the Carmichael's coal to be burned on their behalf. These findings cast a shadow of doubt on Frydenberg's claim that the Carmichael mine's coal would help Indian people.

The moral defence of the Carmichael Project also has a dangerous side-effect. The script perpetuates the labelling of environmentalists as the 'other side'. In this sense, the moral defence of necessity is similar to the economic defence of necessity, which, when consistently repeated, makes it awkward for politicians and activists to reject at the risk of ignoring the economic needs of rural Australians. Large-scale resource extraction disguised as foreign aid is a way for the government to seem as though they value human life over nature (Wilson 2015). Following this line of thinking, environmental groups and others who have critiqued the government's approval of the Carmichael Project due to its harms to the environment or endangered species are also opposed to helping eradicate poverty. Not only is this a false dichotomy (protecting humans and non-human nature is not mutually exclusive), the logic is

flawed – the argument equates fossil fuels with human prosperity. Coal is given a feel-good narrative which presents it as a national saviour in an appeal to the emotions of the audience (Brevini and Woronov 2017). As former Prime Minister, Tony Abbott declared: “Coal is good for humanity, coal is good for prosperity, coal is an essential part of our economic future, here in Australia, and right around the world” (ABC 2014). The script is essentially: “coal has always lifted people out of poverty and we [the government and corporation] support investing in coal mining projects that will lift people out of poverty!” The moral defence of necessity thus places the burden of proof on environmentalist groups. Even though the claim of ‘lifting millions of people out of energy poverty’ is untrue, by repeating the script in statements to the media, this statement becomes a part of the (storytelling) framing of the Project. The Carmichael Project, Adani, and those politicians who approve of the endeavour are associated with positive news (eradicating energy poverty or bringing new jobs to Queensland). By the same token, environmentalists and those who disprove of the Carmichael are associated negatively.

The final indicator that the moral case for coal is merely a technique of neutralisation is found in the language used to make the defence. Assuming that the Carmichael Project would truly “lift millions of people out of poverty,” it would follow that Josh Frydenberg, Adani representatives, and other stakeholders would be able to provide further details as to how this would be achieved and express this argument in a variety of ways. Yet when Frydenberg spoke about the moral case for the Carmichael Project to ABC’s *Insiders* in October 2015, he used the same phrase twice - “There is a strong moral case” – in the span of a few minutes, before making some emotionally charged statements. Host Barrie Cassidy suggested Frydenberg’s argument was making it appear that selling coal overseas was a foreign aid effort, to which Frydenberg responded:

There is a strong moral case here. Over a billion people don’t have access to electricity. That means that more than 2 billion people today are using wood and dung for their cooking...I’ve just been at the G20 and at the APEC energy ministers meeting and they pointed out over one billion people around the world don’t have access to electricity. This means that more than two billion people today are using wood and dung for their cooking...Now the World Health Organization says that this leads to 4.3 million premature deaths. That’s more people dying through those sort of inefficient forms of energy than from malaria, from tuberculosis and HIV AIDS all combined. There’s a strong moral case that the green activists sometimes don’t comprehend (ABC Insiders 2015, emphasis added).

“Strong moral case” serves as a memorable catch phrase – an element of storytelling framing – in support of the Carmichael Project. “Strong moral case” has appeared in numerous media headlines since the *Insiders* interview, alluding to the revolving door between PR firms and the media. Frydenberg has repeated this phrase, as Palaszcuk has repeated the claim of the Carmichael mine bringing ‘10,000 jobs to Queensland’ as justification for the project. Yet the Carmichael Project will bring neither jobs for Australians nor electricity for Indians.

Once the defence of economic and moral necessity scripts are scrutinised it is clear that they are methods of denying the harm that the mine would bring while also a way to create a story that benefits those who seek the Project’s approval. In fact, the Carmichael Project would not only threaten thousands of jobs in the tourism industry of the Great Barrier Reef, but it would also provide few – if any – jobs for human Queenslanders, giving the Australian government has an economic reason to reject the proposal. On the same token, the mining project would

not lift a single person out of poverty but instead contribute to climate change in a way that threatens those living in poverty most severely and immediately – a moral reason for the Australian government to reject the proposal. Former Greens Senator Larissa Waters concludes there is “a strong moral case for Australia to help develop the renewable energy technology that will safely provide people in developing countries with power” (Aston 2015).

Engineer consent for the Project from the Australian public, however, requires complex and multi-faceted arguments that are not solely about necessity. The defence of necessity, via economic or moral arguments can be debunked through the investigation and reporting of statistics that represent the real number of jobs, economic contribution, or environmental harm. These statistics can, in turn, revoke the Project’s label of ‘necessary’ in the minds of the public. For this reason, stakeholders interested in advancing the Carmichael Project have also utilised the the technique of neutralisation known as ‘denial of injury.’ Thus, the ‘necessary’ Carmichael Project evolves to a project that is both ‘necessary and harmless.’

Denial of Injury and Responsibility

In order to argue that the mega-mine should be approved to operate, Adani stakeholders and several Australian politicians have suggested that the mine would not cause any significant environmental damage. These stakeholders have also stated that any potential damage is either not the responsibility of the Australian government or has been considered with a plan for its minimisation. To consider the potential harms of the Carmichael Project, an Environmental Impact Statement was required of Adani by the government. This document was shown by several environmental organisations (among them Greenpeace; the Australian Conservation Foundation; and the Mackay Conservation Group) to have inadequately addressed the concerns that the Carmichael mine would cause harm to vulnerable species living on the proposed mining site as well as emit an amount of greenhouse gases that would immensely contribute to climate change, threatening ecosystems such as the Great Barrier Reef. Regardless of the EIS’s lack of environmental safeguards, however, the Project has been consistently granted environmental and mining approvals from the Queensland state and Australian federal governments. The Project’s ability to gain government approval is due in part to the way in which the environmental harms have been denied or minimised by Adani representatives and pro-Carmichael politicians using existing federal legislation.

Throughout the timeline of the Carmichael Project’s approval, there have been several examples of denial of injury and denial of responsibility by the state and corporation. Harms associated with greenhouse gas emissions, as demonstrated by the Australian Conservation Foundation’s federal court case, have been *interpretively* denied through the government’s classification of emissions.

Scope 1, 2, and 3 emissions

Once the Carmichael Project received its second approval under the EPBC Act (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc [2015] QLC 48*), the ACF brought a judicial review application to the Federal Court in Brisbane. The environmental group argued that the Minister did not comply with his obligations under the EPBC Act when he approved the mining project, specifically citing Australia’s obligations to protect the Great Barrier Reef under both the World Heritage Convention and *EPBC Act*. Under the division of powers between the Australian Government and the states, as stated in the Australian Constitution, states have the primary responsibility for environmental protection. However, the EPBC Act gives the federal

Environmental Minister authority over nine defined matters of national environmental significance:

- world heritage properties;
- national heritage places;
- wetlands of international importance;
- nationally threatened species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mining); and
- a water resource, in relation to coal seam gas development and large coal mining development.

Aside from nuclear actions, eight of the nine matters are relevant to the Carmichael Project. As such, the ACF argued the Minister, in his Land Court decision to approve the mine, should have considered these environmental matters in the broader context of Australia's social and economic needs.

The Land Court case also revealed that after the first approval under the EPBC Act was set aside by consent, the Minister received new data regarding the impact of GHGs on the Great Barrier Reef (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042). Among the data the Minister received was the expert report of Professor Ove Hoegh-Guldberg, Director of the Global Change Institute at the University of Queensland and expert on climate change impacts on coral reefs. Hoegh-Guldberg's report stated the mean global temperature rises of 3°C above pre-industrial levels 'would result in scenarios where any semblance of reefs to the coral reefs of the Great Barrier Reef Marine Park today would vanish.' The Minister also received a joint expert report of Dr. Chris Taylor and Associate Professor Malte Meinshausen, environmental scientists. This report stated:

- At current global rates (and assuming no further growth in emissions), the global emissions budget to limit mean global temperature rises beneath 2°C above pre-industrial levels would be exceeded within 20 years, which would still be a very dangerous level of warming for the Reef;
- In order to limit warming to beneath 2°C above pre-industrial levels, no more than 850 billion tonnes (Gt) with carbon dioxide equivalent greenhouse gas emissions (CO₂-e) could be emitted globally after 2015;
- the combustion emissions would be about 4.64 Gt of CO₂-e (joint expert report in the Land Court) or about 1/183 of the total available global emissions if warming is to be limited to 2°C; and
- the combustion emissions (4.64 Gt of CO₂-e) would be about 54 times greater than the mining emissions from the coal mine directly (0.086 Gt of CO₂-e) (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042).

The Minister claimed to have evaluated this new data, focusing on the question of what constitutes a ‘relevant impact’ on the Great Barrier Reef with regards to the Carmichael Project’s predicted environmental impacts in light of the EPBC Act. Section 527E of the EPBC Act defines an event or circumstance as an impact of an action if ‘the event or circumstance is a direct consequence of the action; or for an event or circumstance that is an indirect consequence of the action...the action is a substantial cause of that event or circumstance’ (EPBC Act). Thus, in order to prove that the Carmichael Project would have significant impacts on the Great Barrier Reef, the link between the mine’s GHG emissions and the warming of the Earth’s atmosphere would have to be established. Conversely, in order to prove that the Carmichael Project would not impact the Great Barrier Reef an argument denying the injury and thus neutralising the harm would have to be established.

In order to unpack the decision, which denied the environmental harm that the Project would cause through its GHG emissions, it is necessary to understand the types of emissions defined in the Australian Government’s National Greenhouse and Energy Reporting (NGER) scheme. There are three different types, or scopes, of GHG emissions: Scope 1, Scope 2, and Scope 3. The establishment of these three categories was intended to aid organisations interested in pursuing industrial projects in two ways. First, the categories allow the organisations to manage and report their GHG emissions to stakeholders, who often request this data as a part of their sustainability performance indicators, in an organised manner. The separation of GHGs into three categories also helps organisations visualise their emissions into those they have control over and those they can only influence. However, the categories have also worked to externalise emissions of industrial projects; making them appear less harmful on paper than scientists believe.

The Australian Government’s 2016 Clean Energy Regulator defines scope 1 emissions – sometimes referred to as ‘direct emissions’ – as ‘the emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level’. Scope 1 emissions are specified under NGER legislation and therefore must be reported. Examples of scope 1 emissions include: emissions produced from manufacturing processes, such as from the manufacture of cement; emissions from the burning of diesel fuel in trucks; fugitive emissions, such as methane emissions from coal mines; or production of electricity by burning coal (Australian Government 2016b).

Scope 2 greenhouse gas emissions – sometimes referred to as ‘indirect emissions’ – are ‘the emissions released to the atmosphere from the indirect consumption of an energy commodity’ (Australian Government 2016b). Indirect emissions may sometimes come from the use of electricity produced by the burning of coal in another facility. Scope 2 emissions from one facility are often part of the Scope 1 emissions from another facility. For example:

A power station burns coal to power its generators and in turn creates electricity. Burning the coal causes greenhouse emissions to be emitted. These gases are attributed to the power station as Scope 1 emissions. If the electricity is then transmitted to a car factory and used there to power its machinery and lighting, the gases emitted as a result of generating the electricity are then attributed to the factory as Scope 2 emissions (Australian Government 2016b).

Scope 2 emissions are specified under NGER legislation and must also be reported. Scope 3 emissions, unlike Scope 1 and 2 emissions, are not reported under the NGER scheme, but can be referred to under Australia’s National Greenhouse Accounts in documents such as a

project's Environmental Impact Statement. Scope 3 emissions are defined as 'indirect greenhouse gas emissions other than Scope 2 emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business' (Australian Government 2016b). Some examples of Scope 3 emissions include the emissions from extraction and production of purchased materials; transportation of purchased fuels; use of sold products and services; and flying on a commercial airline by a person from another business (Australian Government 2016b).

Out of the potential 4.7 billion tonnes of GHGs from the Carmichael Project, 98% are Scope 3. These emissions would result from burning the coal from the Carmichael mine in coal fired plants in India. Table 6.1 provides a breakdown of the projected emissions of the Carmichael Mine.

Table 6.1: Projected emissions of the Carmichael Coal Mine

Measurement	Annual average emissions (Mg CO ₂ -e)	Lifetime emissions (Mg CO ₂ -e)
Scope 1	628,723	37,723,358
Scope 2	808,898	48,533,904
Scope 3	77,395,516	4,643,730,979
Total	78,833,137	4,729,988,241

(Taylor and Meinshausen 2014)

Even though the coal from a mining project is guaranteed to be eventually burned and will therefore contribute GHGs to the atmosphere, Adani was not required to report the Scope 3 emissions in any of the project's planning applications. Instead, the corporation only reported Scope 1 and 2 emissions, i.e. those produced by the process of mining itself. Excluding Scope 3 emissions on legal documents that influence the Australian government's decision on whether or not to approve the Project denies 98% of the mine's contribution to global GHG levels – a substantial impact on climate change.

The ACF submitted that Scope 3 emissions should be considered to be 'impacts' as defined in section 527e of the EPBC Act. The Minister for the Environment, however, disagreed, arguing:

While the proponent has identified a quantity of overseas GHG emissions that may result from burning the coal, these emissions are not a direct consequence of the proposed action. The actual quantity of emissions that is likely to be additional to current global GHG emissions depends on a range of variables. They include: whether the coal replaces coal currently provided by other suppliers, whether the coal is used as a substitute for other energy sources, and the efficiency of the coal burning power plants. The international multilateral environment agreements, the United Nations Framework Convention on Climate Change and its Kyoto Protocol, provide mechanisms to address climate change globally. Under these agreements, the nations responsible for burning the coal produced from the proposed mine would be expected to address the emissions from transport by rail, shipping and combustion of the product coal in their own countries (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc* [2015] QLC 48).

The appeal was eventually dismissed by the court. Justice Griffiths found that Adani and the Australian government successfully argued the impossibility of identifying a causal effect between the mining project and any relevant impact on the Great Barrier Reef. Through this judgement, the Australian government had denied and externalised the GHG emissions from the burning of the mined coal into the environmental costs resulting from the Project. The justification for this decision included the fact that the coal would not be burned in Australia, and therefore Australia could not be responsible for the GHGs' effect on climate change.

The Australian Government's National Greenhouse and Energy Reporting scheme categorises greenhouse gas emissions into three categories: Scope 1, 2 and 3. While the scheme was intended to aid corporations in their reporting of emissions, it has also made it possible for the government to justify approving large scale industrial projects, such as the Carmichael mine, even though the project's coal would emit millions of tonnes of carbon dioxide into the atmosphere. By splitting GHGs into categories that are ranked in terms of seriousness and ability to be managed, the harms of a project's emissions are once again able to be legally denied. Regardless of which scope the gases are placed in under Australian legislation, they are the same gas and are therefore equally harmful. The atmosphere of the Earth, due to global winds, does not recognise national borders. Thus, the "if the GHGs are not emitted in our country it is not our country's issue" is illogical. When a government considers approving the mining of its coal reserves, it should consider the entire lifetime of the mining project – from excavation to burning. In allowing the coal in the Galilee Basin to be dug up, the Australian government should not be able to evade responsibility for the harms the coal would cause simply because it will not be burned on Australian ground. Yet, the differential treatment of each emission provides a legal loophole for the assessment of an industrial project's environmental impacts.

Net emissions

When the ACF argued to the Federal Court of Brisbane that the Minister of the Environment failed to properly consider the impacts of climate change pollution from the Project on the Great Barrier Reef, the Minister's submissions also made several references to 'net emissions.' The net emissions argument, along with the scope 3 emissions argument, allow the government and Adani to deny the responsibility for the Carmichael Project's GHG emissions.

Put simply, the concept of 'net emissions' implies that in order to prove that emissions from the Carmichael Project will result in higher global GHG levels (thus raising the global temperature, contributing to climate change and destroying ecosystems such as the Great Barrier Reef) it must be proven that the emissions from the mine will not be offset by a carbon-reducing initiative elsewhere in the world. In other words, there needs to be a *net increase* in global emissions in order for the Carmichael Project to be held responsible for impacting the Great Barrier Reef. This argument is summarised by Minister Greg Hunt:

Sea temperatures are on the rise and this trend is expected to continue, leading to an increased risk of mass coral bleaching; gradual ocean acidification will increasingly restrict coral growth and survival; and there are likely to be more intense weather events. The extent and persistence of these impacts depends to a large degree on how effectively the issue of rising levels of greenhouse gases is addressed worldwide (*Adani v Land Services of Coast and Country*).

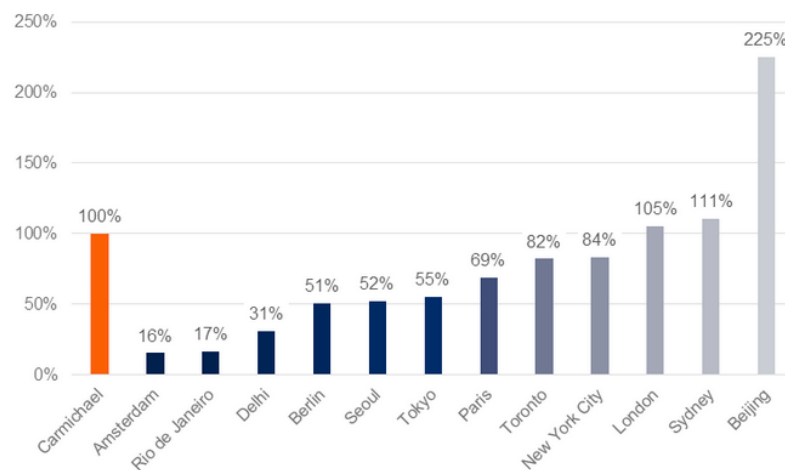
Citing net emissions, the Minister had suggested that it is impossible to tell whether the Carmichael Project would lead to an increase in global GHG emissions since it is impossible to calculate an increase or decrease in GHG emissions from future projects around the world. Once investigated, this statement is revealed to be untrue. The argument that Australia's GHG emissions are negligible compared to the rest of the world was continually cited among pro-Carmichael politicians. For example, as late as 2018, Senator Ian McDonald stated to Parliament:

Australia emits less than 1.3 per cent of the world's carbon emissions. If we shut Australia down [from coal mining] completely, it would mean virtually nothing to climate change...Australia does its bit. We've reduced our emissions as good corporate citizens of the world...Already, there are other countries opening up coal-fired power stations. As Senator Williams so finely and accurately pointed out, the amount of carbon we emit in Australia as a nation is less than what these new power stations are already emitting. Look after the jobs of workers... (The Commonwealth of Australia 2018).

While predicting the number of coal mines throughout the world that would either begin or end their operation throughout the duration of the Carmichael Project is impossible, it is also irrelevant. This argument relies on an incorrect view of how GHG emissions impact the Earth's atmosphere. Once carbon dioxide from the burning of fossil fuels is released into the atmosphere, it is trapped there and increases the Earth's temperature. The Carmichael Project's contribution to GHG emissions is therefore unrelated to the GHG emissions of other mines. The Carmichael's emissions cannot be "offset" by a large-scale carbon cut elsewhere, yet environmental offsets are considered to be a compensation for 'unavoidable impacts on significant environmental matters' by the Australian government (The State of Queensland 2018a).

Therefore, the question of whether or not the Carmichael Mine will impact climate change pollution and the Great Barrier Reef has already been answered by multiple climate change scientists, as depicted previously in Table 6.1. Regardless of any other mining projects or 'green initiatives' that will add or subtract to the carbon equation, there currently (at the time of the debate surrounding the Project's emissions contribution in court) facts that can be considered. According to the Australia Institute, Adani's Carmichael Project will be the largest coal mine in Australia. Its estimated average annual carbon emissions of 79 million tonnes are three times those of New Delhi, six times those of Amsterdam and double Tokyo's average annual emissions, as shown below (Amos and Swann 2015)

Figure 6.3: Annual CO2 emissions of major cities and Carmichael Mine



(Amos and Swann 2015)

At that rate, the Carmichael Project’s GHG emissions, which will remain trapped in the atmosphere, will irrefutably contribute to global warming.

In order for Adani and the Australian government to claim that it would not be responsible for the GHG emissions that result from the Carmichael Project, they must deny or minimize the impacts of the mine. This denial of injury is facilitated through the Australian Government’s National Greenhouse and Energy Reporting scheme, which separates GHG emissions into types, or scopes, that are then subject to differing levels of scrutiny. Assessing the GHG emissions of a project according to this classification system allows emissions to be treated differently – based on the government’s definition of them – even though all emissions are the same (in this case, carbon dioxide) and therefore are equal in environmental effect. This in turn allows for misleading emissions figures to be reported and publicised. Merely reporting Scope 1 and 2 emissions, for example, leaves out (or denies) the majority of the Carmichael Project’s potential ecocidal GHG emissions.

Adani’s submissions to the ACF’s appeal for judicial review made reference to other cases in which the concept of net emissions had been regarded as relevant, in order to defend the Minister’s decision that the combustion emissions from the Carmichael Project were not a “substantial cause” of environmental harm (as defined by s527E of the EPBC Act). The overseas combustion emissions were effectively externalised due to the “range of variables” that made a determination of the quantity of GHG emissions “speculative at the time” (*Australian Conservation Foundation Incorporated v Minister for the Environment* [2016] FCA 1042).

The argument for the Carmichael Project, combining the defence of necessity and denial of injury with a denial of responsibility, thus takes the following form:

Premise 1: This mining project is necessary (economically and morally).

Premise 2: Since it is necessary, other countries will want to seize this opportunity from Australia if Australians do not approve it – it will be constructed and operated somewhere.

Premise 3: The GHG emissions that result from the necessary project will therefore occur regardless of whether the mine operates in Australia or elsewhere and are speculative at this stage.

Conclusion: We (the Australian government and/or Adani) cannot be held responsible for the resulting harms of the mine.

Since Adani is a transnational corporation based in India, the proposed development and operation of the Carmichael Project would take place in Australia, and the mined coal would subsequently be transported to and burned in India, the responsibility for the resulting harm (via carbon emissions) is able to be legally evaded (via Australian legislation). The state and the corporation are able to approve an ecologically destructive mining project, while maintaining that all legislation has been followed – including that which sets out to protect the environment.

There has been another instance of the government's denial of injury and responsibility for the harms of the Carmichael Project. Through the legal framework for environmental offsets in Queensland, the government has also denied the harm to biodiversity.

Offsets

Harms associated with vulnerable species, as demonstrated by the Mackay Conservation Group's federal court case, have been *literally* denied through the government's requirement of environmental offsets and imposing of responsibility for biodiversity protection measures on Adani. This method of addressing concerns of biodiversity loss in the mining area has allowed the Australian government (specifically the Department of the Environment) to deny injury to threatened species and to deny responsibility if injury were to occur, as responsibility has been legally passed on to Adani.

The Project's first approval under the EPBC Act was set aside by consent in 2015, with both the Mackay Conservation Group and the Environmental Minister agreeing that the effects of the mine on two vulnerable species – the yakka skink and the ornamental snake – were not properly considered. Two months later, the Minister reapproved the mine with 36 new conditions for Adani. According to the Department of the Environment, these conditions addressed the concern over the two species by ordering 'at least 135 hectares of ornamental snake habitat and at least 5600 hectares of yakka skink habitat' to be protected and managed by Adani (Australian Government 2015b). The Department of the Environment has not published any further information, including a detailed prescription on how it will monitor or enforce these conditions, suggesting that Adani has full discretion over how these habitats will be protected. Given Adani's previous record of environmental harm, this decision may prove to be ecocidal in its effect.

The Minister also had to address the Project's impacts on another threatened species living in the proposed mining area, the black-throated finch. To do so, according to the Department of the Environment, further conditions have been placed on Adani (Australian Government 2015b). These conditions include: Adani must identify and implement measures to avoid impacts to threatened species and their habitat outside of the areas subject to clearing or underground mining; Adani must use fauna spotters to and during all vegetation clearing activities to ensure no animals are harmed during clearing; and Adani must rehabilitate all areas of black-throated finch habitat once mining is finished. Again, further details on what Adani

must do to comply with these conditions have not been released, giving Adani full discretion on implementation of these protective measures.

The Australian Government (2015) further stated:

Where impacts could not be avoided, offsets are required to compensate. Importantly, a detailed Biodiversity Offset Strategy is required of the proponent for approval by the Minister for the Environment before mining can commence. At a minimum the offsets must include: Protection and improvement of 31,000 hectares of southern black-throated finch habitat.

The legal framework for environmental offsets in Queensland includes the *Environmental Offsets Act (2014)*, ‘which coordinates the delivery of environmental offsets across jurisdictions and provides a single point-of-truth for offsets in Queensland;’ the *Environmental Offsets Regulation (2016)*, ‘which provides details of prescribed activities regulated under existing legislation and prescribed environmental matters to which the Act applies;’ and *The Queensland Environmental Offsets Policy (2008)*, ‘which provides a single, consistent, whole-of-government policy for the assessment of offset proposals to satisfy offset conditions’ (The State of Queensland 2018b). In addition, the *EPBC Act (1999)* incorporated a federal *Environmental Offsets Policy (2012)*. The Policy utilises several principles to determine whether an offset is a suitable compensation for adverse impacts of an action on the environment. In the Carmichael case, this addition represents the legal loophole that allows the Minister for the Environment to approve a project while admitting it will undermine the EPBC Act’s objective of biodiversity protection.

Adani had published its ‘Environmental Offset Package for the Carmichael Coal Mine and Rail Project’ report in 2013. In it, Ecofund, the company who researched a ‘preferred offset package’ and wrote the report for Adani, stated:

The preferred offset package, composed of five properties, is expected to acquit the offset requirements...The preferred offset package have yet to be ground-truthed to determine the actual extent and suitability of environmental values on the ground and the figures represented in this package are based on a desktop assessment and spatial analysis.

Details of the package have not been released to the public, with pages 29-43 of the report removed for ‘confidentiality’, and the report cites ‘unpublished’ reports by Adani in its references (Wickson 2013). Yet the Australian Government has continued to cite the Minister’s ‘conditions of approval’ for the Carmichael Project as evidence that the Project should be built. In 2018, the ‘Galilee Basin (Coal Prohibition) Bill’ was presented by Queensland Greens Senator Larissa Waters. The bill cited climate change as reason to leave coal in the ground, and would prevent the Carmichael Mine from going ahead. Senator Ruston followed the script:

The government is applying the most vigorous assessment under the Environmental Protection and Biodiversity Conservation Act 1999 to this project. The Carmichael mine has been assessed and approved under the process and is subject to over 180 environmental conditions from state and Commonwealth regulators... (The Commonwealth of Australia 2018).

While offsets are mandated by courts when the environmental harms are understood to be unavoidable, the EPBC Act grants the Minister for the Environment the right to deny the approval of a project if it threatens endangered species. Therefore, offsets – which are authorised for ‘unavoidable’ environmental consequences – legally allow for the neutralisation of even those harms that warrant refusal of approval under the EPBC Act. Neutralisation occurs when something is acknowledged or admitted to, but either the category of the acts to which it is assigned (i.e., “crime”) is refused or the act is presented as justified (Cohen 1993: 107). The state had acknowledged that the Carmichael Project would impact the black-throated finch while neutralising the severity of the harm by suggesting offsets would be sufficient to protect the species from harm. By providing an alternative to rejection under the EPBC Act, offsets undermine the very protection against environmental harms the EPBC Act was created to provide.

The Environmental Defenders Office of Queensland (EDO Qld) (2014) has stated that while offset areas are a common response to legal objections from environmental groups regarding harm towards non-human victims, they are usually arbitrary and not well-researched. Unless the precise environment and lifestyle of a native species is studied, offset areas will not be successful in ensuring a species’ survival. The prescription of offsets as a condition for a project allows the government to appear to meet the objectives of environmental conservation and economic development simultaneously. Yet offsets operate on the assumption that there is a need to accept environmental losses in return for uncertain gains (EDO Qld 2014).

In the case of the Carmichael Project, if the state was to legitimately seek the preservation of the animals (while also approving the Carmichael Project), the native habitat of the yakka skink and ornamental snake would have to be studied prior to its destruction, in order to build an offset habitat that provides identical conditions. Research into the native habitat had not been ordered by the Federal Minister – only a list of the number of hectares allotted for each species was published – nor does such research already exist.

The harms groundwater have been similarly denied. In a document describing the Carmichael Mine published by the Australian Government (2015), the government states, ‘Approximately six per cent of the water needed to operate the mine will come from the Great Artesian Basin. This usage is offset by the requirement that at least 730 mega-litres must be ‘repaid’ to the Great Artesian Basin each year for five years’. Not only is it unclear whether this figure represents a complete replenishing of the Great Artesian Basin, it also does not state how this figure was reached or how this will be implemented. Instead, the government has required Adani to complete ‘research plans’ on the groundwater in order to limit impacts from the mining.

If not properly researched and implemented, as in the Carmichael case, offsets can be understood as a technique of neutralisation, rarely contributing to environmental protection while allowing the government to maintain the pretence of providing a thoughtful response to an environmental issue. Such denial grants Adani the ability to continue its claims of being environmentally conscious and allows the government to appear environmentally conscious while also pro-development.

Adani’s Greenwashing

The media and, more generally, the Internet are critical tools for the investigation of the truth behind a company’s claims of environmental conduct. Adani’s public relations team has

utilised both of these tools during the debate over the Carmichael Project. Press releases on behalf of Adani have sought to promote a holistic image of the company and Project as providing economic opportunities in the form of permanent jobs and social benefits to communities involved with its projects. Before analysing Adani's promotion of its self and systemic view through the corporation's website and press releases, the PR team that is responsible should be investigated.

Adani's public relations team

It is often difficult to find out who exactly is behind a company's image, as this information would challenge the belief that the media (as an unbiased presenter of information) reports what it thinks is true, without promoting some other agenda. After searching the Internet, the only mention of PR and Adani Mining or the Carmichael Project that I was able to locate was on the Facebook page of a Brisbane-based public relations firm – Republic.

Republic describes themselves as a 'Brisbane-based public relations and communications firm that has helped companies such as Adani Mining, Ratch Australia, ARC Well Equipment and Queensland Coal Corporation to make the most of their story' (Republic PRa).

This single sentence is the only mention of Republic's business with Adani on the PR firm's Facebook. Republic's Facebook page also stated that it began operating in April 2016. The PR firm that handled Adani before this point remains unknown.

Upon studying Republic's website, several pieces of incomplete information were discovered. First, the site does not include Adani in its main "clients" tab (Republic PR, n.d.). The reason for this is unknown, as the company's Facebook clearly states that it worked for Adani and there is a separate page devoted to the firm's work on behalf of Adani. The website also cites Gareth Quinn as its principal and Bianca Shurman as its creative director, excluding the second principal of the firm, Peter Young. The firm's 'Capability Statement,' which is provided as a PDF through a hyperlink on the website, is the only official document that seems to be available to the public.

Figure 6.4 is a screenshot of Republic PR firm's team, which evidences the close relationship between PR firms, corporations, the media, and the government. The Principal of the firm, Gareth Quinn, has clear connections to fossil fuel and mineral industries. The second Principal of the firm, Peter Young, has clear connections in the media and government. Shurman, as the creative director, would be in charge of the framing of the stories.

Figure 6.4: Members of Republic

The storytellers.



Gareth Quinn
Principal

Gareth is a seasoned writer and communications strategist. He's spent the best part of 20 years getting the message across for clients across a range of industries including mining, oil and gas, construction, hospitality and government. Gareth has been engaged by both public and private companies including Arrow Energy, Xstrata Copper, Queensland Coal Corporation and the Department of Primary industries to manage effective relationships with a diverse range of stakeholders.



Peter Young
Principal

As the former founder and manager of leading communications consultancies in Brisbane and Jakarta, Peter has worked around the clock and around the world for clients such as Telstra, BHP Billiton, Coca Cola, British Airways, Visa International and the Indonesian Government. Peter started his career as a radio broadcaster and political reporter with Channel 9. As a former ministerial advisor and press secretary in the Queensland Government, Peter has brushed shoulders with Premiers and Prime Ministers and built a wide network of relationships with elected representatives at local, State and Federal levels.



Bianca Schurman
Creative Director

Bianca is an experienced graphic designer and web developer having worked in leading graphic design and advertising agencies for more than 10 years in both Australia and in the United States. Her expertise spans the full creative spectrum from the graphic design of brochures, advertisements and annual reports to website development, digital campaigns and photography. She has worked for many well known Australian brands including St George Bank, Sanofi, Natures Own, Max Brenner, and Westfield.

The screenshot depicted in Figure 6.5 below was taken from Republic's website's 'success stories' tab (Republic PR, n.d.). Here, Adani is listed as one of Republic's clients among other energy and infrastructure companies. This suggests Republic has had experience in representing similar clients to Adani and has been able to achieve some success in doing so. However, this also calls into question the firm's Facebook page's claim that it had only begun operating in April 2016, as some of the clients appear to be older.

Figure 6.5: Republic's previous clients

re_public®

Your Story. Well Told.

Success stories.

Nothing can tell our story better than our past work. The following case studies represent some of the public relations and communications campaigns we have created over the past few years. Although our clients come from different industries, each has a similar story to tell - exceptional results follow the creative execution of a sound strategic platform.

 QUEENSLAND
COAL
CORPORATION
We're For Better

 RAC

 arrowenergy
go further

 adani™

 DART ENERGY

 PAYNTER DIXON
BUILDING YOUR BUSINESS

 ARC
WELL EQUIPMENT
CLEANER • GREENER • LEANER

 1ICT
Consider IT done.

 HMG
HARDCHROME
REACH YOUR PEAK

Lastly, Figure 6.6 is a screenshot of the firm's page dedicated to showcasing the work it had done for Adani (Republic PR, n.d.). The page includes newspaper clips of newspapers that have a 'strong relationship' with Republic and have articulated their support of Adani.

Figure 6.6: Republic's work for Adani

Adani



Challenge

Adani's plans to deliver three major mining infrastructure projects in Queensland are threatened by environmental activism. With more than 10,000 future jobs on the line, it has been important to solicit and communicate third party support.

Solution

Republic has engaged with opinion leaders, government and business leaders in Bowen, Mackay, Townsville, Moranbah, Clermont and Emerald before taking advantage of our strong media relationships to articulate their support for Adani.



All of the newspapers in Figure 6.6 appear with the iSentia logo. Further investigation revealed iSentia is a media intelligence group based in Sydney and listed on the Australian Securities Exchange. Founded by Neville Jeffress, an Australian advertising executive, iSentia has locations in South-East Asia and China and won the Communications Research and Evaluation Company of the Year at the 2015 International Association for Media Evaluation and

Communication awards (ISentia, n.d.). ISentia's awards raise the company's perceived reputation and elevate the status of the news articles which contain their "seal of approval." Together, Republic and iSentia make up a part of the known team behind Adani and the Carmichael Project's image.

Self-proclaimed excellence

Talbot and Boiral's study (2014) found that the strategy of self-proclaimed excellence, in which a company focuses on its environmental commitments and awards in order to promote an idealised green image, was often cited among the mining sector as a commonly utilised method of impression management. Compared to other techniques (such as condemnation of condemners, for example), self-proclaimed excellence is an "optimistic" neutralisation technique that focuses on elevating the company-in-question's "green" status. Instead of attacking the credentials of other companies or industries directly, self-proclaimed excellence allows for the company to imply their superiority over competitors by claiming awards and maintaining a consistently positive image in the media. Adani, as well as the Australian government, have used this technique to neutralise the environmental harms that would result throughout the lifetime of the Carmichael Project: 'The Carmichael Coal Mine and Rail Infrastructure project has been approved in accordance with national environment law subject to 36 of the strictest conditions in Australian history' (Commonwealth of Australia 2015a); 'Adani Mining Pty Ltd is an environmentally responsible company that is committed to protection of the environment and to the sustainable management of its operations and activities' (Adani Mining Pty Ltd 2012b)

Self-proclaimed excellence and impression management techniques work to establish a connection between *company x* (in this case Adani) and the image of an environmentally, morally, and economically responsible company in the minds of the consumer. In other words, the aim is for the company to become a symbol of (or synonymous with) the virtues of what consumers believe to be "good business practices" through storytelling framing. The question of whether or not the Carmichael Project should be permitted to operate dissolves into a discussion of Adani and the Australian Government's resume of green credentials.

Adani applies this technique in two ways. First, self-proclaimed excellence allowed the company to claim superiority as a corporation in the field of large-scale coal mining operations. The narrative is:

We are one of India's largest corporations.

We achieved this level of success because we are trustworthy.

We are trustworthy because we consider the environment in all of our business practices.

The Adani Australia website (shown in Figure 8.4) demonstrates this sentiment in their "History" section, which mentions its revenue and refers to its trustworthiness regarding the communities affected by its operations.

Figure 6.7 Adani's self-proclaimed excellence



(Adani Enterprises (n.d. a)

This reasoning also allows the corporation to distance themselves from their competitors, who are arguably less successful and trustworthy than Adani due to their bad environmental practices, leading to the implied conclusion:

We can therefore be trusted to execute the Carmichael Project with consideration for the environment.

Promoting an idealized green image is one of Adani's strategies of greenwashing. In his book "Greenwashing," Pearse (2012: 70) discusses how the coal mining industry is notorious for its aggressive greenwashing since coal – and the process of burning coal to produce energy – is as dirty as it gets:

The company that owns the coal mine, the contractor that digs up the coal, the companies that handle freight and electricity generation, and their various lobby groups and industry associations – all are busy selling the industry that contributes the most to climate change as clean and green.

Adani Enterprises consists of almost all of the companies named by Pearse in his investigation into the greenwashing techniques of various business sectors. Adani Mining, the company that is involved with and initiated the approval of the Carmichael Project, is merely a subsidiary of its parent company, Adani Enterprises. Adani Enterprises is the flagship company of Adani Group, the Indian multinational conglomerate that has diversified businesses, including energy sectors. Some part of "Adani" is therefore present from the beginning stages of coal extraction to the final stages of coal burning, making the corporation one of the most dependent on greenwashing. Self-proclamation of excellence techniques become necessary in order for the company to maintain a positive image with the public and continue to sign new business contracts.

Typical to greenwashing campaigns of the mining industry (e.g. 'clean coal'), Adani also makes the claim that its technology sets them apart from others in the industry by producing less environmental harm. Adani's website claims Adani Power is the 'of super-critical technology in thermal power plants in India which lowers the carbon footprint of our thermal power plants' (Adani Enterprises n.d. b). The basis for this claim remains unclear as the website does not include information on how Adani Power's technology is able to do so. The website also offers two subsections, "Mangroves," which briefly discusses the company's "mangrove afforestation activity at various locations of Gujarat," and "Terrestrial," which highlights their "conducted successful research" which allowed the company to preserve "87+ species in terrestrial biodiversity and 4 species in marine biodiversity (mangrove) in highly saline soil and other sea soils." The company's environmental harms and outstanding criminal

investigation of its stakeholders as detailed in Chapter Three are not countered or mentioned on the website.

Awards and recognition assist a company's self proclamation of excellence. Typical to public relations campaigns that showcase a company's achievements, the Adani website also features a specific example of its success and also refers to a recent award on behalf of its 'green' status. Adani specifically cites its work in India, where the group's new Department of Horticulture has 'has pioneered the implementation of the latest Iso-Dutch technique in India where a green zone has been developed in highly saline sandy soil and water (35000-45000 TDS)' (Adani Enterprises n.d. b). The Port company of Adani, APSEZ, is cited to have been internationally recognized as a 'World port for a better climate' due to its implementation of 'green port ideology' and for 'better environment control in desert conditions' and winning the "IAPH Busan Open Award for its successful strategies for making a 'Green Port' (Adani Enterprises n.d. b). The criteria for the award; the details of APSEZ's 'green ideology and environmental control'; and the awarding body remain unclear.

While Adani frequently recalls its environmental record abroad, specifically with its commitment to the latest "cleaner and greener" technologies, the corporation does so vaguely – never outlining its environmental contributions in detail in order to avoid scrutiny. Environmental contributions are mentioned due to the trendiness of appearing "green," and, in the case of Adani, do not facilitate a public discussion of a project's environmental harm or the company's environmental record.

Complementary to its self-proclamation of excellence as a technique of neutralising the Carmichael Project's environmental harm, Adani promotes its own 'systemic view.'

Promotion of a systemic view

As described by Talbot and Boiral (2014), the promotion of a systemic view occurs when a company makes the claim that it should not be judged solely on the record of environmental practices. Instead, it is argued that the company's *total* contribution – including the economic and social – to the communities involved in their projects should also be taken into account into their reputation. This differs from the strategy of self-proclaimed excellence in that the focus is on the "bigger picture," which – just like the triple bottom line – insinuates that economic matters and social issues precede environmental harms in importance and priority.

Once again, an insightful source into a company's self promotion is its website. Company websites are usually the first point of reference for anyone wanting to learn more about the corporation (in this case Adani) or the corporation's endeavours (in this case the Carmichael Project). Well-aware of the critical role its website has in influencing the public's first impression, Adani's offers its online guests selective information on its past activities, current business model, and corporate board. The difficult-to-navigate design of its websites and the rhetoric used to describe its practices make Adani.com (and its sister sites) a useful tool in denying harm and promoting its pro-business, yet "green" image.

Of the six main tabs on the site's homepage, "Sustainability" is centred between "Businesses" and "Investors." There, the corporation emphasises its efforts in good environmental practice: "As a responsible corporate citizen, Adani adopts and follows the best industry practices for minimal impact on the environment and long term sustainability of the mining endeavour" (Adani Enterprises n.d. b). The page continues to list a selection of past actions the company

took in order to fulfil its promise to follow the best industry practices: ‘Ecofriendly Reforestation: India’; ‘Online Ambient Air Monitoring System: India, Indonesia, Australia’; ‘Land Reclamation: India’; and ‘Water Reservoir: Indonesia’.

The Adani website’s “Sustainability” tab also has a section titled “Environment”, which makes a number of goals, such as ‘to create plantation and greenery not only to reduce CO2 emission but also to become responsible corporate citizen and to create environment friendly/Sustainable setup’ (Adani Enterprises n.d. b). The page states that since the infrastructure industry depends on natural resources, it is ‘the responsibility responsibility of the industry and the organisations that constitute it to preserve and conserve the environment around their operations and as a responsible corporate citizen, Adani has undertaken multiple initiatives and innovations for the best protection and preservation of the environment in and around our sites and communities’ (Adani Enterprises n.d. b).

Also under the “Sustainability” tab is a tab for “The Adani Foundation.” The Adani conglomerate has created the Adani Foundation, a foundation run by Dr. Priti Adani – wife of Guatam Adani and who is described as “treading a path hitherto less travelled in Corporate Social Responsibility” on the Foundation’s site – that focuses on four areas: education, community health, sustainable livelihood, and rural infrastructure (Adani Enterprises n.d. c). This addition links the concept of ‘sustainability’, as Adani interprets it, to both concepts of environmental and social responsibility.

The Adani Australia website, which is specifically devoted to the Carmichael Project, contains a tab titled “Environmental and Social Governance.” Here the company promises to undertake its projects in a way that not only meets regulatory requirements as set out by the Australian government, but also to “engage and contribute to the communities in which we operate” (Adani Australia n.d. a). It is not specified how they plan to “engage and contribute,” however.

Focusing on economic benefits, Adani entices further business deals. Social benefits allow the company to maintain its wholesome image. The script becomes: “We need to look at more than just the environment. We need to look at sustainable development as a whole. In judging our performance, it should also be considered that we contribute to the economic and social development of the community/state/country.” Only when environmental issues are raised, the script includes: “[Yes, mining does produce carbon emissions, but] our state-of-the-art technology allows for a new, clean coal that is less harmful than our competitors’.”

This technique perpetuates the image of the corporation as a wholesome one and the environmental issues (and the environmentalists who raise them) as purposely fault-finding, which allows for other techniques of neutralisation (such as condemning of the condemners) to be used. The goal of these techniques is to influence how the mental cost-benefit analysis of the Carmichael Project is computed by consumers and citizens. If Adani can successfully place environmental issues below economic and social issues in importance through the publication of the Carmichael Project’s job numbers and the company’s previous successes, it can guarantee the public’s coming to a conclusion that the Project should be given approval to operate. This complements the company’s denial of injury and responsibility for harm. When environmental harms are brought to the media’s attention, for example, by environmental groups, they are already ranked as less important to the economic and social benefits of the Project. The economic and moral necessity is once again alluded to.

All websites are designed with self-promotion in mind. Yet this should not exempt Adani's claims from scrutiny. Corporate public relations and corporate social responsibility have themselves become industries. Corporations such as Adani set aside millions of dollars each year towards greenwashing marketing strategies in order to maintain a green image and therefore be granted the right to operate. Governments, too, have utilised this technique.

Government Greenwashing

The Australian government has engaged with its own type of greenwashing. In this case, policies and opinions of certain politicians are applauded as good by referring to their authority on what is good. This can be achieved through a member of the government's winning of an international award for work in his or her department.

The representation of the state and federal politicians as experienced and excellent in their respective roles works to establish trust in their decisions. It is thought that a politician or government that is believed to be honest, trustworthy, and acting in the best interest of its citizens is less likely to have its decisions criticised by the public. In the case of the Carmichael Project, this is most evident through former Environment Minister Greg Hunt.

Self-proclaimed excellence

The Australian government promoted its green image by citing then Environment Minister Greg Hunt's acceptance of an award: Best Minister in the World. However, further investigation into the criteria for the selection of the winner as well as the institution that carries out the award suggests that this was a strategically-timed public relations stunt.

In February 2016, Greg Hunt was named Best Minister in the World at the World Government Summit of Dubai (Ireland 2016). The award was created by Reuters, which then commissioned the World Bank, the OECD, Ernst & Young, and Strategy and Co. to create a series of criteria and draw up a list of nominees. This resulted in 100 nominations, which Reuters then narrowed down to 10, from 80 countries, assessed based on four criteria:

- Innovation and leadership: the solution that was introduced by the candidate will have revolutionised the utilisation of government services by its citizens. This work of true innovation will have increased productivity, reduced costs and improve the citizen's opinion of the government;
- Quality and impact: the solution should address the needs of the citizens and must demonstrate a significant social impact. Significant social impact includes but is not limited to easily accessible government services for all citizens, efficiency in execution, human development impact, job creation, etc;
- Replication: the solution must have the quality of being easily replicated in multiple geographies. The solution should demonstrate propensity for impact beyond the local level, either nationally, regionally or globally; and
- Reputation: the candidate must be highly credible amongst his peers and the general public. The candidate must have a proven record amongst his peers of developing innovative solutions that have positively impacted the citizens (Taylor 2016).

Minister Hunt's win sparked a backlash from the Greens, who attacked his "brazen audacity" over accepting the award (Taylor 2016). Hunt was chosen for a number of reasons, according to the World Government Summit, including his "work on the Great Barrier Reef policy" (which allowed the Reef to avoid an "in danger" listing by the UN's World Heritage Committee through the ban of dumping dredge spoil in the marine park) and his international work negotiating of the phasing out of synthetic greenhouse gases (Ireland 2016). While the avoidance of an "in danger" listing by UNESCO was framed as an achievement, it was achieved through lobbying – not rehabilitation or protection of the Great Barrier Reef (see Chapter Three). In fact, an "in danger" status could have helped to prevent the potentially ecocidal consequences of the Carmichael Project. In addition, December 2015, a few months before Minister Hunt won the award, it was revealed that Australia's GHG emissions had increased by over 1% during his time in office.

The "the best minister in the world" award exemplifies a political advocacy advertisement. It provides the media with a slogan – or story, as this news typifies story-telling framing – that can be used to describe Minister Hunt. Whenever scepticism of his environmental intentions arise, this self-proclaimed excellence is an appeal to (Hunt's) authority. This is summarised by the following script:

Premise 1: The Environment Minister's role includes approving projects that comply with Australian environmental legislation.

Premise 2: The Environment Minister received an award naming him "Best Minister in the World" because he is good at his job (approving projects that comply with Australian environmental legislation).

Conclusion: If the Environment Minister, the best minister in the world, approves the Carmichael Project, it must therefore be in everyone's best interest (and comply with Australian environmental legislation).

This logical reasoning makes explicit the need for positive self-promotion in order to argue that one knows best with respect to running a country's environmental matters. Yet when juxtaposed with the data regarding Australian GHG emissions and Hunt's "work on the Great Barrier Reef policy" as discussed in Chapter Three, it is revealed that the award is another technique of denying the harm of the Carmichael Project and can be seen in the larger scope of the "promotion of a systemic vision" of Australia.

The establishment of an image of excellence through its self-promotion of awards and credentials also allows for the credentials of the person who critiques the government to be critiqued. In other words, the citizens speaking out against the Carmichael Project (whether they are environmentalists or not) are subject to ad hominem attacks while the content of their criticisms is left unaddressed.

Condemnation of Condemners

The Carmichael Project's various harm have also been neutralised with an attempt to attack the credibility and intentions of those who criticise the government's approvals for the Project. This strategy – condemnation of the condemners – has been used within some of the other neutralisation techniques analysed so far whenever the state or corporation responded to a

criticism of the Project with an ad hominem statement against whoever posed the critique. For example, scientists have been condemned as inaccurate or biased in their reports on the Carmichael Project's emissions and politicians who have objected to the government's approval of the Project have been condemned as insensitive to the (economic) needs of rural communities. Condemnation of the condemners can and has also been used to justify the Project in another way, as exemplified by two stakeholders.

When the Mackay Conservation Group launched a challenge to the Environment Minister's approval of the mine under the EPBC Act on the grounds that he did not consider the two vulnerable species (the yakka skink and the ornamental snake) and the approval was set aside by consent, the backlash against environmental activists was severe.

Queensland Resources Council Chief Executive Michael Roche and States Mines Minister Anthony Lynham were among the most vocal in expressing their disappointment in the Federal Court's decision. Roche accused anti-coal advocates of using "legal loopholes" to delay a significant economic investment in Australia (ABC 2015). Perhaps the most noteworthy reaction, however, came from Attorney-General George Brandis, who proposed a change in section 487(2) of the EPBC Act in order to prevent "vigilante litigation" and "lawfare by radical green groups" (Clark 2015). Brandis described the lawsuit as brought upon by groups that "have no legitimate interest other than to prosecute a political vendetta against development and bring massive developments ... to a standstill" (Clark 2015). News of the court case's outcome travelled to the highest office in Australia; former prime minister Tony Abbott co-signed the attorney general's comments, calling environmental groups' litigation of the Carmichael Mine "a sustained campaign of harassment through the courts" (Medhora and Robertson 2015). Abbott then sought to clarify that he was not suggesting that people should not be able to exercise their legal right, nor was he criticising the courts, but merely being "very critical of the tactics of some elements of the green movement and their apparent ability to play games and to game the system" (Medhora and Robertson 2015).

The response from various politicians in the aftermath of a single court ruling that was not in favour of Adani or the mining project; that was set aside by consent in order to allow for the Minister to reassess the mine after considering new evidence and information regarding the project, is not to be understated. The proposal led by the Attorney General to amend existing environmental legislation in order to remove citizens' legal rights is far more serious than a SLAPP. The senate refused to pass the proposal; once Malcolm Turnbull became prime minister it was indicated that the proposal would be shelved (Taylor 2016).

However, the act of publicly suggesting such change in legislation is a hostile response disproportional in scope to the purported "offense." Should this amendment have passed, it would have profoundly restricted the avenues of citizens to challenge government decisions regarding the environment, an entity that cannot stand up for itself and therefore relies on the democratic process to survive. Furthermore, the language and rhetoric utilised by the politicians cannot help but taint the way in which environmental organisations are viewed and dealt with in the future, beyond the initial media report's release. Accusatory remarks linking environmental activists with the destruction of ten thousands of jobs through their cheating of the system further perpetuate the script that environmental activism and economic interests cannot coexist. The derogatory remarks, especially when the source is the highest political figure in the country, strengthen the beliefs of those who are predisposed to have a negative view towards environmental activists, such as locals in the rural communities that expect to benefit from the mining project's job creation.

If there is a chance that the balance between corporate, or economic, interests and the environmental sustainability can be reached, critical debate in an open democracy is crucial. This is impossible unless the “game” is equal for all players. When prominent figures use their media time to insult activists and seek to close democratic avenues of dissent – especially when their loud claims also happen to be “post-truth” – the burden of evening the playing field once again falls on the environmental activists. Through investigation of claims such as “ten thousand jobs have been destroyed by activists” the public is made increasingly aware that what is presented as truth is often creatively constructed to disguise hidden interests.

Conclusion

State and corporation learn the art of rationalising their offending by “learning a set of scripted responses” (as Sykes and Matza (1957: 667) found offending juveniles do). The arguments made in support of Adani’s Carmichael Project have been demonstrated to involve Adani and the Australian government’s use of these scripted responses.

This chapter has identified and analysed the techniques of neutralisation and denial of harm used by Adani and the government in order to investigate how the Carmichael Project was able to be legally approved for operation in Australia. It has demonstrated how Adani and the government have attempted to control the public’s perception of the Project as immensely beneficial and minimally harmful through how it is framed. Throughout the Carmichael Project’s timeline, the same story has been persistently told, using techniques of neutralisation such as defence of necessity, denial of injury, denial of responsibility, greenwashing, and condemnation of the condemners.

In this culture of post-truth politics, the Carmichael debate has been framed by logical fallacies (such as appeals to emotion). Factual, scientific details regarding the Project’s harms; conversations surrounding the inadequacies of Adani’s environmental plans for the Project; and challenges to the implementation of environmental policy have forced to counter the catchy (and untrue) claims to economic prosperity; moral necessity; and condemners’ bias.

The Carmichael Project has proven techniques of neutralisation are factually untrue statements - whether they are used intentionally to deceive or not. The powerful, who have interests in the approval of the potentially-ecocidal Project, have used these lies in portraying the Project in a positive light to gain public support and trust. Techniques of neutralisation and denial are common features of crimes of the powerful. Crimes that are immensely harmful in nature and committed by a state and/or corporation, sometimes against its own citizens, must be portrayed as non-crimes or non-harmful actions. The next chapter discusses the approval of the Carmichael Project as a crime of the powerful; a result of the collusion between the Australian state and the Adani corporation.

Chapter Seven

CRIMES OF THE POWERFUL

“Only one thing was wanting: an institution which not only secured the newly acquired riches of individuals against the communistic traditions of the gentile order, which not only sanctified the private property formerly so little valued and declared this sanctification to be the highest purpose of all human society; but an institution which also set the seal of general social recognition on each subsequently developing new method of acquiring property and thus amassing wealth at continually increasing speed; an institution which perpetuated not only this growing cleavage of society into classes but also the right of the possessing class to exploit the non-possessing, and the rule of the former over the later. And this institution came. The state was invented” (Engels 1884: 127).

“We may not have a word for this type of crime yet, but the international community should find a way of classifying extraordinarily irresponsible scientific claims that could lead to mass suffering as some type of crime against humanity” (Brown 2010: 2)

“They [governments and the mining industry and lobbyists] are all in the same game. The system is geared to override human rights, first nation rights and democratic rights. It’s geared toward ... powerful interests and they govern the system. And they don’t think it’s corrupt because it’s normalised; everybody knows the rules of the game” (Beresford 2018: 358).

Introduction

Large industrial coal mining projects such as the Carmichael Project will always result in considerable environmental and social harms (see Chapter Four; Bricknell 2010). Yet these projects and the states and corporations that approve the projects despite the harms predicted by the scientific community and evidenced previous projects are rarely referred to as criminal. The Carmichael Project has received the support and approval from both state and federal governments in Australia. This support, as the previous two chapters have demonstrated, has been predicated on the denial of scientific studies on the resultant environmental harm, including climate change, and acceptance of the trade-off of some ecological degradation for a presumed economic benefit. From the point of view of green criminology, this type of government partnership with Adani can be considered criminal – as a form of state-corporate crime.

The two previous chapters described the scripts used by states and corporations to deny, neutralise, or justify the harms that would result from the operation of the Carmichael Project. The next two chapters frame the Carmichael Project as a crime of the powerful, i.e. a state-corporate crime. This chapter provides an analytical discussion of the crimes of the powerful – state crime, corporate crime and state-corporate crime, as well as a summary of mining in Australia.

The State and State Crime

Crime is generally framed by a problem of disadvantage. Most of ‘mainstream’ media sources’ coverage of crime involves violent or street crimes committed by the working class. A perpetrator’s criminality is usually portrayed as deviating from the rest of society’s norms, involving behaviours and actions that are extraordinary and uncommon. On the other hand, the destruction of the environment, corporate crimes and state crimes do not receive the same mainstream media attention or agency resources (Clifford and White 2017). Powerful individuals and institutions of power are able to normalise their activities in a way that allows their crimes to be portrayed as acceptable, sometimes even necessary, for the continued economic growth of a business and/or a state. Resource extraction, and in particular coal mining, can potentially produce an immense amount of wealth for a number of stakeholders in the state and mining corporation, at the cost of human and non-human victims and the environment. The activities that produce these costs – or harms – associated with coal mining can be studied as ‘crimes of the powerful’.

Crimes of the powerful are linked to both ‘a personal desire to augment one’s wealth, and a structural imperative to get an edge in the overall capitalist economic competition’ (White and Haines 1996: 97). Although often perceived as ‘victimless’ crimes, crimes of the powerful can affect millions of people, ecosystems, and future generations. They include economic crimes such as fraud and environmental destruction and state crimes such as the misuse of public funds and corruption. Crimes of the powerful are thus linked to the operation of the system as a whole. These crimes are inseparable from who has power and how they exercise their power to pursue their interests. The state is one of these powerful players.

The state

There are several ways that ‘the state’ can be defined and understood. At a concrete level, it is apparent that the state is an expansive network of various institutions that incorporate both

elected and non-elected officials, and has the capacity to create and enforce rules and regulations. In Australia, for example, there are three tiers of government – Commonwealth, state and local – that all have the power to make laws and issue sanctions. Yet treating the government as synonymous the state itself is problematic since the government is only one part of the system that makes up the state. Miliband (1969: 46) argued this point: ‘the state’ is not a thing,’ it does not exist as such but what ‘the state’ stands for is ‘a number of particular institutions which, together, constitute its reality, and which interact as parts of what may be called the state system’. According to Miliband (1969), the state system can be understood as composed of six institutions, as presented in Table 7.1: (1) political sector; (2) the administrative sector; (3) the military and police forces; (4) the judiciary; (5) the units of sub-central government; and (6) the representative assemblies.

Table 7.1 The institutions of the state system

Institutions	Examples
Government	Presidents, prime ministers
Administration	Civil servants and state administrators
Military and police	Top military personnel and local police
Judiciary	Judges of the higher courts
Sub-central government	Political and administrative leaders of sub-central governments
Parliamentary assemblies	Congress, Parliamentarians

It is in these institutions that state power lies, and it is through these institutions state power is exercised in different ways by the various people who occupy positions within the institutions. Mitchell and colleagues (1979: 64) summarize this point:

The state, then, is not just an institution. It is a form of social relations, a class practice. More precisely, it is a process which projects certain forms of organisation upon our everyday activity, forms of organisation which do not pose any threat to the reproduction of capitalist social relations...Therefore we can distinguish between two senses of the word 'state', between the state apparatus, and the state considered as a form or process of social relations.

More recently, Tombs and Whyte (2015) have called attention to the state’s facilitating of power relationships in society through key institutions such as workplaces and the family, and can thus be understood as a nexus of mechanisms and apparatuses that organises relations of power, rendering it inaccurate to conceptualize ‘the state’ as separate from the rest of society.

The view that the capitalist state has relative autonomy, or can act separately from capitalist relations, belongs to the debate between Ralph Miliband and Nicos Poulantzas (Kennedy 2016).

Miliband (1969) held a view of the state as an instrument of the ruling capitalist class, with relative autonomy of capitalist social relations of production in order to execute that rule. This ‘instrumentalist’ view suggests the state functions to serve capitalist interests because of the social origins of members of state government and the personal ties and influence between members of the state government and the ruling class elites. Despite functioning in the overall interests of the capitalist class, the capitalist state, Miliband (1969) argued, has a degree of autonomy in a capitalist society. He argued that people in power are often compelled by their

own self-interest to maintain their positions of power, which can conflict with the interests of the capitalist economy. Similarly, executives of a state can be divided over political direction and exert their autonomy to act in ways that conflict with the interests of the capitalist economy. In addition, capitalists must often 'seek accommodation with the state and the executive to secure their interests, while agents of the state may be driven by perceived national interests, which may contract those of capitalist accumulation' (Kennedy 2016: 183). Miliband (1969: 65) concludes that the state and the capitalist form a partnership 'between two different forces, linked to each other by many threads, yet each having its separate sphere of concern'.

Poulantzas (1969) suggested a different view of the state – one that is not reducible to the relationships between the members of the institutions that make up the social apparatus. Instead, he argued that the relative autonomy of the state can be understood by the Marxist theory of capitalist social relations of production. In other words, the state's autonomy lies in its role as the integrator of the political, economic and social structures of a capitalist society. In this 'structural' model of the capitalist state, the state is perceived as external to capitalist relations; an objectively capitalist entity with an overarching function of sustaining the capitalist mode of production.

While Miliband reduces the relative autonomy of the state to 'the act of social agents', Poulantzas reduces the relation to the 'ensemble of impersonal social structures, abstracted from capitalist social relations of production' (Kennedy 2016: 184). Both acknowledge that the state has relative autonomy, however, and this is an important point in the analysis of the potential criminality of the Carmichael Project, as the next chapter will demonstrate.

The state (through the government) must publicly show that it is neutral entity in the midst of class dynamics, as obvious partiality would lead to class conflict and maintaining peace is required for the growth of capitalism. Obvious partiality also threatens the perceived legitimacy of the state. The state's 'neutral image building' leads to its pursuit of independent policies, an example of the relative autonomy of the state (Schwarzmantel 1987). Class cohesion therefore, paradoxically, requires the integration of conflicting interests by a seemingly-neutral state.

In sum, the state's power lies in the power of the forces acting within and through the state (Jessop 1990) but the state is also, as Coleman et al. (2009: 14) put it, 'site (or series of sites) where claims for social justice and 'progressive' politics are forged, fought over, resited and sometimes implemented'.

While the basic premise of rule of law is that laws must apply to all citizens equally, the debate over the Carmichael Project's approval has provided numerous examples the interests of the state executive threatening equality of law. In other words, the interests or concerns of particular individuals within a state can skew the laws of a state (or the interpretation of the laws of a state) in their favor. This may result in an over-regulation of the poor and non-regulation of the powerful.

Non-regulation of the powerful can be traced back to the moment in which criminal courts saw the punishment of the wealthy or ruling class as beyond their sphere of activity. Tombs and Whyte (2007) describe the process of law reform and law implementation as guided by a logic of social ordering; the state mediates over conflict in a way that will not and does not disrupt the status quo. In the last three decades, the form of the state has developed in a way that exacerbates this differential law enforcement. Under neoliberal conditions, the agenda for law

and justice turned from one of punitive enforcement to a compliance-oriented approach. In this model, moral panics are able to be created around the crimes of the powerless, leaving the crimes of the powerful un-moderated – a product of the creation of *un*-panics with regard to the lack of state concern over its own harm (Tombs and Whyte, 2007). The structures that emerge to regulate capital, according to Whyte (2018: 4), can thus be understood as ‘unequal structures of representation’ that handle – by absorbing or dissolving – conflicts between opposing interests. These structures are both legal and administrating and can be found in financial institutions and workplaces.

Differential law implementation and enforcement are the natural outcome of a society in which the state exercises power in almost every aspect of its citizens’ lives. In his writings on private property in the 1884s, Engles predicted the differential law enforcement that would necessarily result from the state.

Because the state arose from the need to hold class antagonisms in check, but because it arose, at the same time, in midst of the conflict between these classes, it is as a powerful, economically dominant class, which, through the medium of the state, becomes also the politically dominant class and so acquires new means of holding down and exploiting the oppressed class (Engles 1884: 208).

The Western conception of property rights – and more broadly, the concept of ownership – begets a society fuelled by commodity production; one where, as Walters (2011: 266) points out, ‘you can use land but don’t have responsibility to others to care for it’. The modern-day state is one in which commodity production on has been transformed into capitalist production, allowing a state to claim legitimacy as long as it acts in accordance with the rules it sets for itself. As Green and Ward (2004: 1) argue, if the states define what is criminal, a state can only be criminal on those ‘rare occasions when it denounces itself for breaking its own laws’.

The next section discusses the concept of state crime, where motivation is implicitly or explicitly related to larger goals and objectives of governments or its agencies (Faust and Kauzlarich 2008).

State crime

With the authority and power that is granted to the state comes the capacity – and opportunity – to do harm. Measuring the harm done by a state presents a challenge: defining state crime is intrinsically linked to issues of legitimacy, as descriptions of state crime cannot rely upon strict legal definitions that have been derived from the state itself (White 2008). For the purpose of this thesis, state crime will be referred to broadly as the crimes involving a state acting against its own citizens.

There are a number of key elements that are often included in crimes of the state, as identified by Kauzlarich et al. (2003). State crime:

1. Generates harm to individuals, groups, and property;
2. Is a product of action or inaction on behalf of the state or state agencies;
3. The action or inaction is related directly to an assigned or implied trust/duty;

4. Is committed or omitted by a governmental agency, organization, or representative; and
5. Is done in the self interest of (a) the state itself or (b) the elite groups controlling the state.

Most people recognise and accept genocide, war crimes and terrorism as state crime but state crimes can be seen as occurring on a continuum (Rothe and Kauzlarich 2016). At one end, state crimes such as genocide result from the conscious goal-oriented activity of the state, while at the other end they result from a failure to act against preventable harm such as the acceptance of inequality and the associated social problems that result from this (Kauzlarich et al. 2003). Michalowski (2010: 23) has arranged this continuum into three tiers, as depicted below in Table 7.2.

Table 7.2 Tiers of State Crime

High profile
<ul style="list-style-type: none"> • Genocide • War crimes • Terrorism
Semi-tolerated violence
<ul style="list-style-type: none"> • War-related death injury and illness to combatants and civilians • Torture • Human consequences of embargoes • Juridogenic crimes • Brutal punishments
Structural violence
<ul style="list-style-type: none"> • Injury, illness or death due to preventable, state-facilitated forms of: <ul style="list-style-type: none"> ○ Poverty and inequality ○ Workplace hazards ○ Consumer risks ○ Environmental pollution ○ Sexism, racism and ethnic ‘othering’ • Loss of life, health, economic resources and autonomy due to: <ul style="list-style-type: none"> ○ Neo-colonialism ○ Neo-imperialism ○ Neo-liberal globalization

State crime can be argued to be inseparable from human rights violations, since the state has taken on the role of institutionalizing human rights. However, the institutionalization of human rights provides the state with an opportunity to claim that their actions did not constitute a human rights violation. Violations of human rights, or harmful actions perpetrated against citizens of the state or international community, are justified by states using techniques of neutralization, as discussed in the Chapters Five and Six. For example, a common script utilised by a state is the claim that a particular action serves the “national interest” and was therefore necessary, regardless of the resulting harms. Another is the denial of responsibility for the action’s resulting harm through the reference to the state’s intricate bureaucratic structure, which is similar to that of a corporation’s. The dissolving of ‘the state’ as a concept is essential to its denial of responsibility for a harmful action. If a state permits a coal mine to operate and

that coal mine contributes to the warming of the atmosphere, which then harms entire ecosystems, for example, which part of ‘the state’ – or who – is to blame?

In sum, the state is a complex political apparatus composed of people working in various institutions of the state, and at various levels (see Poulantzas and Miliband’s debate in the previous section). Crimes committed by the state can be both acts or omission of an action by any actor within the state that results in harm, done in the name of the state regardless of motivation or interests. State crimes may also involve collusion with corporations.

The Corporation and Corporate Crime

Corporate criminality is perhaps the most predominant form of crimes of the powerful. Yet, like state crime, it is under-reported and largely absent from public discourse (White and Perrone 2015). This ‘invisibility’ is due to both the ubiquitous nature of the crimes and the way in which the resulting harms are characterized. Typically, corporate crimes that result in environmental harms, for example, are presented by news coverage in a manner that emphasizes the unusual circumstances surrounding catastrophic ‘accidents’ (such as the BP oil spill in Mexico), as Walters (2013: 137) observes:

[Environmental harms are] often presented in media and political discourses as ‘accidents’ associated with high risk commercial industries. This categorization serves to imbed a discursive public consciousness about the origins, practices and out-puts of ‘necessary’ industries. As a result, ‘accidents’, ‘spills’, ‘leaks’, and ‘meltdowns’ perpetuate a social and political tolerance that accepts environmental harm and human injury as an unfortunate bi-product of essential capitalist enterprise. Such catastrophic events become part-and-parcel of industries that provide the essentials of our daily.

The costs of corporate crime are enormous, outweighing the costs of traditional crimes and can potentially affect millions of people, the environment and future communities (Rothe and Kauzlarich 2016). Corporate crimes are linked with the corporate structure as a whole, just as state crimes are often linked to the state system. Chapters Five and Six demonstrated how corporations can deny harms and using the corporate veil and how this was done with the Carmichael Project’s harms. The following discussion will further elaborate on how powerful corporate interests can perpetuate great harms as well as obscure the nature of harm production, and how these actions can be studied from a criminological perspective as corporate crimes.

The corporation

Whyte (2018: 6) argues that the corporation, from its beginning, can be understood as the ‘ingenious invention for the property owning class’. Corporations are no longer simply legal instruments through which the private business transactions of individuals are processed and performed. Although the corporation is still used in this way, the larger ‘corporate form’ has evolved into a form of property tenure and way of organising economics (Berle and Gardiner 1933). The evolution of the (now) major social institution has been due to the characteristics of the corporation, which grants it several advantages.

First, incorporation assures that the business would not ‘die’ – unlike individuals who have to pay dues from their estate upon death, the corporation is exempt from such death duties (Spencer 2004). A corporation is also legally separate from its partners or shareholders. If a partner becomes bankrupt, the corporation’s assets cannot be used to pay their debt. As previously stated, this corporate personhood creates an organisation of individuals who are protected from liability for any of their activities. Much like the state is composed of numerous social relations and institutions, giving it an omnipresence that clouds liability, the corporation is also referred to as something that is separate from the real people and relationships that make it up – the managers, workers, etc. Through its existence as an autonomous entity in the legal realm, the corporation is able to claim ‘that ‘it’, as a ‘corporate person’, is responsible and therefore liable for the consequences of ‘its’ actions’ (Glasbeek 2002), leaving executives and directors with the guarantee of immunity. ‘Corporate veil’ describes this protection that shields shareholders of the corporation from liability for the harms caused by the corporation (Matheson 2009; Bainbridge 2001; Milton 2007; Tombs and Whyte 2015).

Investors of a corporation also benefit from this corporate veil. Since the ‘employer’ in a corporation is the corporate person (rather than an actual person), the owners are not held responsible for any of the working conditions that their employees face (Whyte 2018). Workers have been prevented from seeking compensation in tort cases involving their multinational corporation employer due to this effect of the corporate veil (Anderson 2001; Khoury and Whyte 2017). In addition, any corporate subsidy granted from the state to the corporation is effectively granted to investors (Tombs and Whyte 2015). While it is argued (e.g. ‘the economic defence’ in previous chapters) that corporations are important to capitalist economies due to their production of goods and jobs, further investigation into the corporate structure suggests that this is a deception (Whyte 2018). The social relationships contained within a corporation are such that the workers or ‘stakeholders’ generate the value for a corporation (for the owners and shareholders of a corporation) but do not receive proportional benefits, in the form of dividends for example, from the corporation. Thus the corporation is a mechanism that at the same time grants the property owning class immense privilege and conceals these privileges in ‘a process of abstraction’ (Glasbeek 2002). This process of abstraction is also a process of self-regulation and, from an ‘outsider’ perspective, acts as the foundation for the argument to allow corporations to conduct their business ‘to bring jobs and wealth into the community’.

Corporate crime

Corporations have been granted a legal personhood by states and use the ‘corporate veil’ to evade financial liability and social responsibility. Corporations are also able to escape responsibility due to the incompatibility of criminal law that is written for individual criminal actions. The key concept in attributing criminal liability is *mens rea*, which focuses criminal law on the psychological state of the individual in the moment they commit the act. Tombs and Whyte (2015: 87) argue the ‘distinction between intention and other categories of *mens rea* (knowledge; recklessness; or criminal negligence)’ result in crimes involving negligent behaviours being treated to less harsh penalties than crimes involving intent – and that this has direct consequences to corporate crime, which usually involve recklessness or criminal negligence. The effect is that corporate crimes are regarded as less serious (Reiman 1995). *Mens rea* also prioritises criminal acts over criminal omissions in terms of seriousness (Tombs and Whyte 2015). It is often more difficult to identify the omission or series of negligent acts in a corporation that is organised in a hierarchy than it is to identify a single act committed by an individual (Slapper and Tombs 1999).

The causes of corporate crimes can often be linked to the corporation's 'cost-driven' management practices and are committed in order to advance financial goals, unfolding over a long period of time (Green and Ward 2004). Some examples of corporate crime include restraint of trade (e.g. antitrust violations and price fixing); fraud in advertising and sales (e.g. misrepresentation of a product in an advertisement); and savings and loan failures (e.g. the selling of risky loans) (Rothe and Kauzlarich 2016). Although corporate crimes are devastating to victims and the community at large, they are regarded as less serious than blue-collar crimes like murder, due to the categorisation of *mens rea* and ease of finding 'the smoking gun' but also due to the way in which they are policed:

Corporate crimes are dealt with by specialist agencies that are not generally recognised as part of the criminal justice system. The regulation of corporate crime is normally the responsibility of quasi-autonomous, publically funded agencies. Those agencies may be responsible for regulating particular types of offending, they may be responsible for particular industries (Tombs and Whyte 2015: 92).

In Australia, for example, the EPA is responsible for safety and waste offences, while other regulatory agencies and associations like the Australian Banking Association monitor banking and financial conduct. Offences that occur within or by corporations are thus able to be labelled as administrative errors, accidents or scandals. The legal concept of strict liability, which imputes liability to a person regardless of their culpability, is able to remove the mental element of the offense and hold a company (the corporate person) liable for its crimes. Strict liability is an important concept in the prosecution of corporate crimes, especially when the natural environment is the victim.

Corporate violence to the environment has harmful effects on humans as well as non-human animals and plants (Hasler et al. 2019). As with most corporate crimes, this victimisation is an outcome of the cost-cutting practices and the pursuit of profit. Often, the costs associated with compliance with state regulations are greater than the costs of paying fines associated with breaching the regulations (Rothe and Kauzlarich 2016). An infamous example of a corporate crime that had devastating effects on the environment is the BP oil spill in the Gulf of Mexico. 210 million gallons of oil were spilled, caused by inferior cement walls and malfunctioning valves. BP was fined \$12 billion after it pled guilty to 11 charges of manslaughter, one felony count of obstruction of Congress, and two environmental misdemeanours (Rothe and Kauzlarich 2016).

Corporate crimes are caused by the pursuit of profit and the consequences of these crimes are profound. Corporations are powerful actors, controlling large amounts of wealth and influencing political activities.

State-Corporate Crime

While states and corporations perpetrate serious crimes, they do not always act alone. Deviant state actions often intersect with criminal actions of corporations, resulting in human rights and environmental violations (Green and Ward 2004). State-corporate crime involves the convergence of these two powerful groups in the pursuit of some collective benefit. For the purpose of this thesis, the concept of state-corporate crime refers to the definition given by Kramer and Michalowski (2006: 20):

Illegal or socially injurious actions that result from a mutually reinforcing interaction between 1) policies and/or practices in pursuit of the goals of one or more institutions of political governance and 2) policies and/or practices in pursuit of the goals of one or more institutions of economic production and distribution.

Criminologists and scholars of crimes of the powerful have identified three explanations for the occurrence of state-corporate crime: organisational motivation or goals, opportunity, and social control (Matthews and Kauzlarich 2000).

Matthews and Kauzlarich (2000) have further identified two forms of state-corporate crime: state-initiated and state-facilitated. State-initiated state-corporate crime occurs when ‘corporations, employed by the government, engage in organisational deviance at the direction of, or with the tacit approval of, the government’ (Matthews and Kauzlarich 2000: 283). State-facilitated state-corporate crime occurs when there is a failure of governmental regulatory agencies ‘to restrain deviant business activities, because of direct collusion between business and government, or because they adhere to shared goals whose attainment would be hampered by aggressive regulation (Kramer and Michalowski 1990: 6). Lasslett (2010) expanded on these sub-categories by identifying ‘corporate-initiated state crime’ as occurring when corporations use their economic power to coerce states into taking deviant actions; and ‘corporate-facilitated state crime’ to include situations where corporations provide the means for a state’s criminality or when they do not alert the community (domestic or international) to the state’s criminality because the deviance benefits the corporation.

Close personal connections between individuals within states and corporations ‘motivate and facilitate many instances of state-corporate deviance’ (Green and Ward 2004: 42). Kramer and Michalowski’s (2006) model of state-corporate crime proposed that criminal or deviant behaviour at the organisational level contain three characteristics:

1. Deviant organisational outcomes are not discreet acts of institutional wrongdoing, but rather the product of the relationships between different social institutions pursuing different goals and responding to different sets of pressures;
2. Horizontal and vertical relationships between economic and political institutions contain powerful potentials for the production of illegal and other socially injurious actions; and
3. The relationships between government and business allow for the flows of information, data, and money to be shaped; facilitate or inhibit deviant organisational behaviour; and shape opportunities and rewards for both socially harmful and socially responsible behaviours.

Varela (2001: 161) argues that the ‘systematic institutionalised failure to apply a nation’s laws justly’ – in state-initiated or state-facilitated state-corporate crime – ‘is a violation of the human rights of its people’. In many cases, state-corporate crime results in environmental degradation (Green and Ward 2004). In the example of mining, once a land permit is granted, the investors of the corporation treat the land as their own private property, despite only having rights to land use. The next section introduces the Australian state’s relationship with the mining sector through its legislation. The next chapter will provide more specific details of legislation in

Queensland and a discussion of Adani's navigation of the mining legislation in attempting to obtain the legal rights to build and operate the Carmichael Project.

The state and mining corporations

Although states have the ability to create and enforce legislation on the environment that addresses global warming and other environmental harms, the emission of carbon dioxide and other greenhouse gases is not currently considered a crime in any state legislation. Kramer and Michalowski (2013: 47) have described how this inaction on – and denial of – climate change by states can itself be labelled as criminal:

The orchestrated denial of global warming and climate change, despite the extensive evidence to the contrary, can also be labelled a state corporate crime. It is a deliberate attempt to thwart efforts to respond in an effective and just way to the emerging problems resulting from the heating of the planet...It consists largely of corporate propaganda built around lies and deceptions masquerading as science, which is then disseminated by ideological and political forces in conservative think tanks, industry trade associations, the corporate media and some government officials.

This inaction on climate change by the state produces environmentally, socially and economically harmful consequences (see chapter four); so does the state's position on harmful industries such as mining.

On mining as a particular example of state-corporate crime, Tsing (2005) argues that the harmful effects can be studied at the moment in which global processes (such as globalisation and capitalism) become localized in a specific context by means of interactions between objects, environments, institutions, and people. The principles guiding international relations and the goals of foreign policy can shed light on the main forces that drive state-corporate interaction at the national and local levels (Zaitch and Gutiérrez Gómez 2015). The relationship between the Australian state and Adani must therefore be widely influenced by the neoliberal economic policies of the Global North and South. Neoliberalism, beginning in the 1970s with the strong economies of countries such as the U.K. and U.S., implemented a series of political and economic reforms in order to address the crisis regarding 'over-accumulated capital.' Open markets, liberalised trade, protected private property, and the promotion of entrepreneurial freedom offered investment opportunities for unused capital. The liberalisation of the markets in the Global South would 'free up new profitable assets that idle capital from the developed nations' and allow them to be able to 'seize and exploit, thereby solving the crisis' (Zaitch and Gutiérrez Gómez 2015: 391).

Mining was influenced by this neoliberalisation process: between 1985 and 2001 more than 90 countries modified or implemented for the first time their mining codes in order to attract foreign direct investment. As discussed in Chapter Three, India implemented its first comprehensive Export-Import Policy in 1985, with the goal of controlling the export of its resources in the interest of the country. Later in 2000, India modified its economic policy to include tax incentives and exemptions from investment restrictions of India's domestic economy.

One of the global process behind state-corporate interaction involving mining is described as ‘accumulation by dispossession’, or the process by which a state strips the public of its commons in an attempt to tackle the over-accumulation of capital surplus (Harvey 2003). Accumulation by dispossession occurs in twenty-first century societies when states mandate ‘the removal of common goods, such as the environment, from the public sphere, by selling them to over-accumulated private capitals, which are found, more often than not, in the Global North’ (Zaitch and Gutiérrez Gómez 2015: 390).

A state’s commodification of public property in the form of natural resources for private, corporate use occurs through the legal framework surrounding the use of those natural resources. By codifying mining into a set of laws and regulations, a new and marketable asset, targeted at foreign investors, is created. The way in which the legal code is implemented forms ‘the basis on which state-corporate interaction is built’ (Zaitch and Gutiérrez Gómez 2015: 391). The result of these interactions by state and corporations through a state’s legislation results in the loss of public goods, or accumulation by dispossession. This concept will be returned to with regard to the Carmichael Project in the next chapter.

Conclusion

This chapter provided the foundation for discussions of the Carmichael Project as a state-corporate crime by discussing the actors (the state and the corporation) and the offenses (state crimes, corporate crimes and state-corporate crimes).

The state is a complex institution. It is both an ensemble of the diverse groups that constitute the state apparatus and a series of social structures and relations. It is both the interpersonal relations of the members of the groups of the apparatus and a capitalist entity. The state as an institution is composed of elected and non-elected officials with a duty to represent their citizens and to carry out the rule of law. Miliband correctly pointed out that personnel within the state will have conflicting interests with regards to the role of the state in relation to a capitalist economy. This provides the state with relative autonomy to make decisions. Poulantzas further identifies that the state’s relative autonomy lies with its unifying role in integrating the economic, political and social relations of capitalism. The people working within the institutions of the state, as well as the institutions themselves, thus operate with some autonomy. This autonomy contains the space for crimes to be committed on behalf of or by the state.

Corporations are powerful actors, controlling large amounts of wealth and influencing political activities. Corporate stakeholders lobby state institutions and people within them to manipulate regulations in their favour, resulting in the state acting against its citizens – or in favour of a particular group rather than as a neutral entity. The corporate structure allows the corporation to be treated as a person under the law. This ‘corporate veil’ shields stakeholders from legal responsibility for any harmful acts done on the corporation’s behalf. Corporate crimes are caused by the pursuit of profit and the consequences of these crimes are profound, especially when committed in collusion with states.

Crimes committed by states, by corporations and with collusion between these two actors sometimes involves the misuse of public lands and results in environmental harm. Mining is

one example in which the state commodifies public property for private, corporate use through the state's legal framework surrounding the use of the natural resources found within these properties. As previous chapters have demonstrated, the Queensland and Australian governments have ignored climate science and environmental harms to pursue the building of the Carmichael Project.

In sum, the state is a site of struggle between classes and opposing interests. The next chapter will identify the ways in which the proposed Carmichael Mine and Rail Project can be understood as a state-corporate crime, involving collusion between the Australian state and the Adani corporation. Chapter Eight will build upon the discussion of private property, rule of law and capital to demonstrate the ways in which these elements were manipulated in order to approve the construction of the Carmichael Project.

Chapter Eight

THE CARMICHAEL PROJECT AS STATE-CORPORATE CRIME

The influence of miners in the [Queensland] state was such that it resembles what some analysts refer to as a ‘shadow government’. Used across a range of contemporary examples of corruption scandals, a ‘shadow government’ is said to exist when politicians and selected, influential business figures facilitate private control over public resources, causing institutional decay of formal government structures’ (Campbell 2015).

Pro-development forces argue strenuously at the top government level for approvals, leveraging the fact that their aims coincide with the government’s needs for revenue and jobs. In contrast, anti-development forces lack serious government access, instead using science ... appeals to sustainability ... [and lobbying] the UNESCO World Heritage Committee (Beresford 2018: 125).

If a mining magnate does want to relay money to a particular political party because of some favour that might be granted at some future date, they can do that without being traced through a whole range of funds and associated entities that the major political parties currently have. This is an issue that needs to be explored very closely, because we could be moving towards an American system where money does buy favour and where money does lobby for particular policy changes (Commonwealth of Australia 2013a).

Introduction

This chapter discusses the Carmichael Project as a state-corporate crime by first describing the legislative process for mining projects in Australia and then analysing particular examples of the Project's approval as instances of collusion. So far, this thesis has described the ways in which stakeholders in government and Adani have denied the harms of the Carmichael Project and falsely cited its benefits. The manipulation of the script surrounding the Project by the state and corporation in order to deceive the public will be shown to exemplify one example of state-corporate collusion. This thesis has also discussed how Adani was able to secure the permits and other necessary approvals for the Project in ways that evade standard procedures. In a number of instances throughout the Project's timeline, Adani has utilised loopholes in Australian environmental legislation that has resulted in a lack of thorough government investigation before granting the corporation the licences necessary to pursue the mining project. This manipulation of legislation and protocol by Adani facilitated by the government will be shown to be another example of state-corporate collusion. This chapter illustrates the suitability of the concept of collusion and state-corporate crime for examining government and corporate denial and greenwashing and the manipulation of environmental regulation.

This chapter also presents one further example of collusion. The government will be shown to have played a role as an enabler for industry despite its duty to act as the keeper of public spaces and protector of the environment through an examination of The White Paper on Developing Northern Australia. This document, published in 2015, contains the foundation for NAIF, which potentially could have led to the government funding the Carmichael Project. The White Paper, written by members of the Australian Government and others who have ties to mining and infrastructure industries, explicitly defines how the government should support and assist industry in developing Northern Australia through the building of infrastructure such as mines. This demonstrates what Miliband's discussion of the state in the previous chapter described: individuals within the state having conflicted interests regarding serving the capitalist state. The greenwashing and denial of harms of the Project, along with the manipulation of environmental regulations and the government's role as an industry enabler as shown by the White Paper attest to criminality of the Carmichael Project's approval.

Australian Mining Legislation

The Australian Government has created legislation that regulates mining, global warming, the Great Barrier Reef and other matters of environmental significance such as water management, species protection, and emissions standards. The Government also decides how to enforce these regulations. Through the state's power of both legislation and enforcement, the state can take on the role of either industry enabler or environmental protector.

The Australian Government's legal framework for public spaces, or the global commons dictates who can use public land and how they can do so. Chambers & Company, a Melbourne-based commercial law firm that specialises in international transactions including mining and construction projects published a report in 2013 titled 'Investing in Australia's Mining Industry.' This report, written primarily for the law firm's potential mining clients, describes Australian mining legislation and licensing scheme as benevolent towards overseas mining investors (Chambers 2013: 15):

The licensing system provides a clear means through which ownership of the minerals is transferred from the State as the owner to the private miners who are then able to engage in mining operations. This system is an important cornerstone

of Australia's open mining system. Provided that license conditions are complied with, a miner is given a degree of certainty as to its rights over a deposit. Such certainty is important to enable investment in a project (with funding often being provided by third parties).

This transferring of ownership of minerals from state to private miners exemplifies what Zaitch and Gutiérrez Gómez (2015) described as 'accumulation of the global commons'. In other words, in the requirement to obtain an authority to use natural resources (such as land, minerals and water) is a state's relationship with nature that allows for the commodification of nature. In the Australian case, those who hold positions of power within the state in government, the judiciary and Parliament have authority over these natural resources and are thus able to dictate the terms of the exploitation of public spaces.

The legal framework for mining in Australia, and particularly in Queensland, determines the interactions between the state and corporation with regard to approving mining projects like the Carmichael. The mining laws of Australia and Queensland encompass the entirety of possibilities for all aspects of a mining project, including: the possible relationship between the state and corporation, the exchange of capital between them, the likelihood for any harms that may occur and the rectifying such harms.

Responsibility for making decisions on whether or not to approve foreign investment proposals – such as the Carmichael Project – lies with the Australian Treasurer, who is advised by the Foreign Investment Review Board (FIRB) when making these decisions. FIRB was established in 1976 as a non statutory body to advise the Government on all proposals to establish new businesses that require an investment of \$10 million or more; investments into existing businesses worth at least \$50 million; and some acquisitions of Australian land. 'Australian land' refers to four separate categories of land: agricultural land; commercial land; residential land; and mining or production tenements (Commonwealth of Australia 2015b; Allens 2017).

Adani, as a foreign investor, had to obtain an approval for its acquisition of Australian land, i.e. a 'mining or production tenement'. FIRB's definition of a 'mining or production tenement' includes "a right (however described) under a law of the Commonwealth, a State or a Territory to recover minerals (such as coal or ore) ..." and "an interest in a right or lease", which includes interests in profit or income sharing agreements (Commonwealth of Australia 2015c). Each state's mining legislation includes a mining act (the *Mineral Resources Act 1989* in Queensland) and a state agreement for large mining projects.

Mining in Queensland

The mining acts cover the entitlements to mine on state-owned and/or private land and prescribe the necessary conditions to acquire mining interests. State governments have adopted a common licensing system for the administration of mineral deposits. The type of license or permit issued by the state depends on the stage of the mining process. In Queensland, mining investors must obtain five permits, depending on the stage of the mining development.

The first permit is the Prospecting Permit, which allows the holder to prospect for minerals and gives priority for a grant of a mining or general purpose lease. A Prospecting Permit can be sought for any mineral other than coal and allows the holder to prospect, hand-mine (mining using hand-operated tools such as jackhammers or shovels) and peg a mining lease or mining claim (The State of Queensland 2017a). The second is the Exploration Permit, which allows

the holder to explore for minerals and gives the miner priority for a grant of a mining or general purpose lease. Exploration Permits in Queensland allow the holder to use ‘more advanced exploration methods to determine the quantity and quality of minerals present’ in an area. For coal, an Exploration Permit Coal (EPC) allows the holder to prospect, conduct geophysical surveys, drilling, and sampling and testing of materials and can be applied for only through a call for tenders (The State of Queensland 2018c). Environmental authorities are not required if the proposed activities meet the criteria for small-scale mining activities. Notably, native title requirements do need to be addressed before an exploration permit is granted.

The third permit, the Mineral development licence (MDL), is issued in order to evaluate the development potential of the defined resource and can be granted if the applicant holds an exploration permit where there is a “significant mineral occurrence of possible economic potential” (The State of Queensland 2017b). MDLs in Queensland allow for the conducting of geoscientific programs such as drilling and seismic surveys, mining feasibility studies, metallurgical testing and marketing, and environmental, engineering, and design studies. An environmental authority must be granted prior to the granting of an MDL. Native title requirements must also be addressed prior to the granting of an MDL. The fourth permit required for mining development in Queensland is the Mining Lease, which provides a miner with a right to work and extract minerals from the land. In Queensland, a Mining Lease enables the holder to machine-mine for specified minerals and conduct other activities associated with mining or promoting the activity of mining. Environmental authorities and native title requirements must be addressed before a mining lease is granted. Queensland’s Boundary Identification Practice Manual outlines the marking out requirements: “If you are required to mark out the boundary of the authority, you will require either a current authority or landowner consent to enter the land to undertake this activity” (The State of Queensland 2018d).

After obtaining a Mining Lease, the corporation applies for a Water Monitoring Authority, the fifth and final permit, which allows the holder to access water bores. In Queensland, having a mining lease or mining development licence comes with the obligation to make good to any damage caused to surrounding water bores. It is possible to apply for a water monitoring authority over land outside the area of the lease or licence in order to comply with these obligations (The State of Queensland 2017c).

Chapter Three discussed Adani’s success in obtaining these permits, despite litigation from environmental organisations and the Wangan and Jagalingou People. Adani’s success is partly due to the structure of the five-step mining permit process. The process allows for the possibility of allowing state actors to define some of the consequences of mining as legal harms. Having such an open-for-interpretation process has also allowed for the current decision-makers to prioritise investment over safe environmental practices – in line with Adani. The final chapters of this thesis will present ecocide legislation as containing provisions that prevent interpretation of economic growth as an unquestioned good in determining potential environmentally harmful projects.

State agreements with mining corporations

State agreements are the negotiated rights and obligations of the state government and a developer throughout the duration of a development project. The developer must prove that the proposed project is economically feasible and also address any environmental and indigenous ‘issues’ in order to be granted an agreement. State agreements cover all aspects of the project, including the development of infrastructure such as ports and the plan for royalty payments.

Once the terms are negotiated by both the state and the developer, the agreement is ratified by Parliament, which guarantees the terms of the agreement would override any inconsistent conditions in any other law. After the ratification by Parliament, a development proposal is drafted and submitted to the relevant Minister for final approval. Development proposals include the arrangements for:

- (a) The mining and recovery of minerals;
- (b) Any beneficiation or further processing of minerals;
- (c) Mineral transportation (usually by rail and/or shipping);
- (d) Accommodation and ancillary facilities for the mine workforce;
- (e) Utilities supply;
- (f) Use of local labour, professional services, manufacturers and suppliers;
- (g) Residue disposal;
- (h) The basis upon which the miner will finance a project; and
- (i) Such applications for further mining leases as are required to be granted to it for the purposes of its proposed operations (Chambers 2013: 19).

In the early 1900s in Queensland, state agreements were mostly used to validate arrangements between the Queensland Government and railway companies (Fitzgerald 2010: 41). *The Milsom Petroleum Agreement Ratification Act 1923 (Qld)* was the first state agreement regarding resource development. Soon afterward, between 1929 and 1930, the Queensland government ratified four agreements to grant developers exclusive rights to prospect for minerals across areas ranging from 573 to 100,000 acres and to apply for and take up mineral leases over the specified lands: *Mining Trust Limited Agreement Ratification Act 1929 (Qld)*, *Commonwealth Mines Preliminary Syndicate Limited Agreement Ratification Act 1930 (Qld)*, *Palmer Development Coy Limited Agreement Ratification Act 1930 (Qld)*, and *Alexander Macdonald Mining Agreement Ratification Act 1930 (Qld)* (Fitzgerald 2010: 42). Queensland's first agreement relating to the coal deposits of the Bowen Basin, which supplies more than half of Australia's coal exports and is 200 kilometres to the east of the proposed Carmichael Mine, was the *Electric Supply Corporation (Overseas) Limited Agreement Act 1947 (Qld)*. The agreement was said to be the beginning of "a new era in the industrial life of the state," as the English company proposed to extract 3.5 million tons of coal per year, expanding the production from the existing mines in the area, and to transport it to the coast for shipment overseas (Fitzgerald 2010: 42). Although this project was never fully executed, it served as the foundation for state agreements regarding the Bowen Basin with Thiess Peabody in 1965 and Central Queensland Coal Associates in 1985.

State agreements are written to be mutually beneficial for the economic interests of the state and the corporation. All phases of the project are included under the 'umbrella contract' of the state agreement, which can only be changed by mutual agreement in writing by both parties. Entering a state agreement demonstrates clear government support for a project and provides the prospective mining company with a powerful 'message of support' that it can use to procure financial support from banks or other lending institutions.

State agreements can be beneficial to mining companies for several reasons. First, state agreements represent a formal allocation of the responsibilities between a corporation and the state *in advance of implementation of the agreement*. This can ensure that the mining project

can go ahead without impediments. Second, a state agreement cannot be changed by the state once it is granted, as amendments require the approval of all parties, including the mining company. This is unlike other Acts of Parliament, which allow states to make unilateral changes without the mutual agreement of the other parties involved (Chambers 2013). Once in place, state agreements obligate the state to grant tenure and mining rights under the state's relevant legislation. This further grants certainty and security to the mining company. State agreements also cover zoning and taxation, thus potentially granting specific benefits to mining companies that cannot be amended once agreed upon. Lastly, the state would have to obtain the consent of the mining company if it wants to acquire or use any of the lands within the state agreement. This finalises the transfer of public lands from the state to the private corporation. State agreements can also benefit the state. Commodification of public land and resources may result in economic development and infrastructure for the signing state. The Carmichael Project was able to navigate this process through the collusion between Adani and the Queensland and Australian federal governments.

State-Corporate Collusion

Collusion is generally defined as an agreement for two or more parties to work together to achieve some questionable, deviant or illegal end goal. The Australian Government's Australian Institute of Criminology (AIC 2017) defines *collusion* as 'any incident of suspected fraud allegedly committed by an employee or contractor of the entity in collaboration or association with a person external to the entity', where *fraud* is 'dishonestly obtaining a benefit, or causing a loss, by deception or other means'. In the case of the Carmichael Project, there are three separate instances that fit this definition of collusion: the collusion between the state and corporation in denying the harms of the Carmichael Project; collusion to manipulate environmental regulation for Adani to proceed with the Carmichael Project; and collusion in building and funding the Project through the NAIF. Each of these moments of collusion between state and corporation have involved using dishonesty and deception in order to achieve the approvals necessary to build the Carmichael Mine and Rail.

Collusion by denial of harms

In part, the Adani Carmichael Project stands out as a case of state-corporate crime because of the extent it involves consciously planned and executed campaigns aimed at deceiving the public about the actual harms and risks posed by the mining of the Galilee Basin. As the discussion of the Australian state's and Adani corporation's techniques of neutralisation and denial of harm (Chapter Six) has shown, conflicting information has been presented by these stakeholders on the harms versus 'benefits' of the Carmichael Project. One example of a deceitful statement – a lie – made by Adani corporation and the Australian state to the public involved the Carmichael's job figures; i.e. the stakeholders' 'economic argument' for the Project's approval. Both Adani and the government have claimed that the Carmichael Mine would create 10,000 jobs for local Queenslanders but when forced to speak truthfully in court, Adani stated that the actual job number would be closer to 1,200 (*Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors* [2015] QLC 48). Despite this admission, the script of '10,000 jobs for Queensland' was continued by both corporate and government actors.

The manipulation of the public's perception of the Carmichael Project through the deliberate spreading of propaganda disguised as truth helped the government and Adani in a few ways. The lies, presented as facts, became the basis for Adani and the Carmichael Project to receive the necessary approvals for operation in Queensland and Australia. The lies (e.g. regarding economic benefit; mitigation of harms to endangered species and the Great Barrier Reef; statements made claiming Indigenous groups are in support of the Project) became the facts used by Adani in court that allowed them to win legal challenges brought forth by environmental and Indigenous groups. The campaigns aimed at deceiving the public also allowed the Carmichael Project to be seen (by those in the pro-Adani, pro-mining camp) as simply another example of 'greenies against industry'. As Holcomb (2008: 205) states, 'when conflicting information regarding environmental practices is so readily available' the result is the public may 'become discouraged by inconsistent reports.' While discouraging the public from thinking about the Carmichael Project as anything more than government/pro-jobs versus greenies, the misinformation campaigns were able to control the conversation surrounding the debate. Debate around the severity of the environmental harms that would result from the Carmichael Project – not just as another mine but as one of the largest coal mines in the world – was stifled.

Adani, as a corporation, used various techniques of neutralisation and denial of harm to help them achieve and maintain a status of authority on mining matters; and to be portrayed as a foreign company that can be trusted with helping Australia by creating jobs and developing the Galilee Basin. The Australian Government, on the other hand, did not need to use these techniques to gain trust. Instead, the state, which naturally enjoys a level of trust from its citizens, used its position of trust to deceive those same citizens. Both parties knew that the Carmichael Project would be ecologically harmful, yet both sought to suppress this information and provided the public with misinformation suggesting the opposite. This could not have been done without the collaboration – or collusion – between state and corporation. Without the state, the corporation would be viewed more sceptically; as a profit-making entity. With the state's endorsement, however, the corporation gains credibility. Techniques of neutralisation and denial of harm was used to help Adani remain beyond the scope of the law. This is one key reason the Carmichael Project's application was able to proceed despite scientific evidence of climate change and other environmental harms the endeavour would produce. The state, through its institutions and people within those institutions (Ministers for the Environment, who continually went on record in favour of the Project – see Chapter Six – for example) neglected its neutral position in favour of the lobbyist's, Adani's, position of supporting the Project.

Thus, the state and corporation colluded through the denial of harms. As Chapter Four demonstrated, the harms that would arise from the operation of the Carmichael Project are significant, as measured and defined by the scientific community. The denial of these harms – where 'denial' is the act of selective ignoring of information and refusing to acknowledge the reality of the situation – and the presenting of false information (i.e. job figures, support for the mine, benefits of the Project) is evidence of collusion by the Adani corporation and Australian Government.

Collusion by manipulation of environmental regulations

Adani was also able to escape the reach of the law through its manipulation of Australian environmental regulations. 'Making the law disappear' (Snider 2000) was made possible with the assistance of the Queensland state and Australian federal governments. For example, in Queensland, it is mandatory for a company to have an Environmental Authority in order to

conduct business such as mining. Yet in August 2010, one week before incorporating in Australia, Adani was able to purchase its Environmental Authority from another company (see Chapter Three). Adani was thus able to evade the standard government assessment procedure by purchasing its Environmental Authority – and this was legal done according to Queensland legislation. Having bought its Environmental Authority allowed further manipulation of the law to the corporation’s benefit. In 2013, the Environmental Protection Act was amended to require companies to register as suitable operators unless the company already possessed an existing environmental authority, in which case the company would be automatically registered as a suitable operator. This stipulation allowed Adani to avoid needing to disclose its environmental record and the requirement for a government investigation into its suitability to operate in Australia since it had the purchased environmental authority from 2010. These are just two examples of Adani’s manipulation of environmental regulation. Previous chapters have described numerous other instances. The state – at a federal level – is also complicit in these manipulations of law. By allowing exceptions such as the one described in the amendment to the EPA, the Australian Government has created legislation that benefits those who exploit the country’s natural resources.

The Chambers Law document (discussed in Chapter Seven) described how Australian federal mining legislation is perceived to be ideal for foreign mining investment by corporations that wish to do so. Adani’s manipulation of this environmental legislation has not only been facilitated through the loopholes in the mining assessment process described above, but also through the text of the legislation meant to protect the environment. The aim of the Environmental Protection and Biodiversity Conservation Act (EPBC Act) is to protect the environment (EPBC Act 1999). Yet Adani and the Minister for the Environment used this Act to justify the approval of the Carmichael Project in court. As Chapter Three describes, for example, the Minister for the Environment referred to Section 527E of the EPBC Act, which defines an event or circumstance as an ‘impact’ of an action ‘if the event or circumstance is a *direct* consequence of the action; or for an event or circumstance that is an indirect consequence of the action—subject to subsection 2, the action is a *substantial* cause of that event or circumstance’, to argue that in the Carmichael case, the ‘physical effects’ associated with climate change (increased ocean temperature and acidification) are not a *direct* impact of the proposed action (*EPBC Act 1999; Australian Conservation Foundation Incorporated v Minister for the Environment [2016] FCA 1042*, emphasis added). The debate surrounding ‘direct consequence’ dealt with Scope 1, 2 and 3 emissions as well as ‘net emissions’ and made it possible for Adani to submit that determining ‘actual net emissions’ was ‘speculative’.

The federal government’s environmental legislation, which has allowed Adani to side-step proper assessments before gaining approval of its mine and rail project, has also had another impact: the sustained political fight against alternative energy. In 2016 the Commonwealth Scientific and Industrial Research Organisation (CSIRO) was faced with a budget cut of \$115 million. Approximately 275 staff had been identified for redundancy, including Dr. John Church, the world’s leading expert on global sea rise (Turney 2016). The budget cut thus affects Australia’s ability to properly study and respond to the effects of climate change. Also in 2016, the Australian Renewable Energy Agency (ARENA) received funding cut of a half a billion dollars (Hopkin 2016). ARENA’s focus was heavily concentrated on research into the introduction of renewable energy into the electricity system. These budget cuts demonstrate the government’s refusal to prioritise the transition to alternative energy from coal.

In addition to slashing budgets related to energy renewal, the Australian federal government has attempted to alter environmental regulations that have allowed environmental groups to

litigate against the Carmichael Project. Chapter Three described Attorney-General George Brandis' call to change Section 487 of the EPBC Act in order to prevent 'vigilante litigation' and 'lawfare by radical green groups' (Clark 2015). In 2016, then-Prime Minister Malcolm Turnbull received a bid by former Prime Minister Tony Abbott to abolish Section 487 completely (Hepburn 2016). Ultimately this did not happen. However, the threat of eliminating Section 487 remains a poignant example of a state responding to environmental activists' challenges to environmentally harmful decisions with a public proposal to move to a less democratic process of allowing industrial projects to go ahead without the opportunity to be checked by the judicial branch.

Collusion in building and funding the Carmichael Project

In 2016 Adani sought a \$1 billion AUD loan from the Australian federal government for the financing of the railway line to the site of the proposed Carmichael Coal Mine through the Northern Australia Infrastructure Facility (NAIF) (Viellaris 2016). The NAIF was created as a part of a larger plan for developing Northern Australia; a White Paper released on 18 June 2015, titled 'Our North, Our Future'. 'Our North, Our Future'. The White Paper describes the government's 20-year vision for Northern Australia, a land mass that covers 40% of the country, including all of the Northern Territory and the parts of Western Australia and Queensland above the Tropic of Capricorn, as pictured below:

Figure 8.1 Northern Australia



Northern Australia includes the Galilee Basin, the proposed site of the Carmichael Project. The 200-page document begins with a Forward that introduces the theme of the paper, i.e. the role that the state should have in developing Northern Australia:

Governments alone cannot develop Northern Australia, they can only set the right environment for businesses to profitably invest and communities to flourish. The north will only truly achieve its potential with the participation of all the people who live there, including Indigenous Australians (Commonwealth of Australia 2015d: IV).

Similarly, the 'vision statement' states that governments' role is to 'create successful business environments...through prudent economic policies' (Commonwealth of Australia 2015d: 2).

This ‘government-facilitated rather than government-led’ growth is argued to be necessary since ‘business is far better placed to understand the risks and rewards from northern economic development [than government]’ (Commonwealth of Australia 2015d: 3). ‘Our North, Our Future’ details the North’s ‘need’ for large-scale mineral extraction projects, and contains provisions for the handling of any Indigenous and environmental issues that may arise from such projects.

An analysis of NAIF and ‘Our North, Our Future’ situates the Carmichael Project as arising out of the Australian state’s desire to develop its north through resource extraction by partnering with interested corporations. In other words, the political climate of Australia – from the time of the Carmichael Project’s first application to the Queensland election – was one that was amicable to a state-corporate partnership for resource extraction projects, particularly those that, through fulfilment of NAIF criteria, would provide economic benefits to a number of stakeholders. The language used in the White Paper presents the role of the state as one of industry enabler; one that would facilitate large-scale industrial project’s such as Adani’s in order to ‘develop’ the North, despite environmental warnings.

The White Paper was signed by former Prime Minister of Australia, the Honourable Tony Abbott MP; former Deputy Prime Minister for Infrastructure, the Honourable Warren Truss MP; and former Minister for Trade and Investment, the Honourable Andrew Robb AO MP; with specific acknowledgement to the contributions from the former chair of the Joint Select Committee, the Honourable Warren Entsch MP; Senator the Honourable Ian Macdonald; and the Honourable Shane Stone and his Northern Australia Advisory Group. Investigating the authors of the White Paper identifies what the stakes are – and whether or not there are conflicts of interest in promoting the development of the North through industrial projects as the ‘future’ for the citizens of Northern Australia.

The authors of the White Paper

On 10 June 2014 the former Deputy Prime Minister and former Minister for Infrastructure and Regional Development, the Hon. Warren Truss MP, issued a media release that announced the Australian Government’s vision for ‘opening northern Australia to development’ began with the release of the Green Paper on Developing Northern Australia (Truss 2014). The Government’s Green Paper contained six policy directions to further develop northern Australia: delivering economic infrastructure; improving land use and access; improving water access and management; promoting trade and investment, and strengthening the business environment; fostering education, research and innovation; and enhancing governance. Truss’s media release also announced the members of the Northern Australia Advisory Group, which would ‘provide expert advice on developing northern Australia to the members of the Strategic Partnership – the Prime Minister, Deputy Prime Minister, the Premiers of Queensland and Western Australia and the Chief Minister of the Northern Territory’ (Truss 2014). The members of the Advisory Group would contribute their suggestions to shape the Australian Government’s policy directions, which would be outlined in the White Paper on Developing Northern Australia that was published later that year. Truss (2014) states:

All members [of the Advisory Group] have a deep understanding of, and commitment to, the prosperity of the north and are well-placed to provide expert

advice on its economic development. They represent the diverse community, Indigenous and business interests of northern Australia.

Upon investigation, however, it was found that most of the members were involved or had stakes in the mining industry during their time serving on the Advisory Group.

The Hon. Shane Stone AC QC chaired the Advisory Group. Stone was the former Chief minister of the Northern Territory and Federal President of the Liberal Party and also a member of the Thiess Advisory Board (Truss 2014). Thiess, a subsidiary of Leighton Holdings – Australia’s largest construction company – is the world’s largest mining services provider, covering all stages of the mining lifecycle, including development; extraction; processing; and remediation (Thiess, n.d. a). Their mission states: Our mission is to generate sustainable returns for shareholders by delivering projects for our clients while providing safe, rewarding and fulfilling careers for our people (Thiess, n.d. b). In April 2016, while Stone sat on Thiess’s Advisory Board, foreign bribery experts called for a national corruption watchdog to investigate the growing evidence of the company’s questionable payments for a coal deal in 2010.

Syam Reddy, a property developer contracted by Thiess Indian venture, helped secure the company a \$6 billion coal mine deal in 2010. An internal investigation report concluded that Reddy made some form of payment or promise of benefit to a high ranking Indian government official in respect of this bid (McGrath 2016). Two years later, a whistleblower raised the investigation with Leighton's CEO and Dr. Kirstin Ferguson, who chaired Leighton's ethics committee and Thiess' advisory board at the time. The whistleblower was dismissed but no further action was taken. The whistleblower lodged a case in 2014 against Leighton at the Fair Work Commission which settled shortly afterwards. Dr. Ferguson is now an ABC board member (McKenzie et al. 2016). Comments made by Thiess staff in an interview to Investigators Deloitte suggest that the corrupt behaviour was common practice in the workplace. Mr. Reddy would make numerous claims about payments he agreed to make. In this particular case, he paid the Indian government official approximately \$16 million to influence the awarding of the contract (McGrath 2016). Bruno Munro, former Thiess chief executive also admitted to investigators that he had some knowledge that Mr. Reddy was making payments on the side but did not know the extent or form the payments took – “whether that be a holiday in Singapore of \$1 million, I’m not sure” (McGrath 2016). Unlike the whistleblower who also realized what Mr. Reddy was doing, Mr. Munro was able to retain his job as CEO until he left in May 2015.

According to Truss’s media release, Stone is also ‘a director of public and private companies in Australia and the UK’. The statement did not name the companies. However, Stone’s profile on the National Board of The Duke of Edinburgh’s International Award - Australia (DEIAA) website reveals some of them: Anne Street Partners Limited (diverse publishing interests in UK and USA), UK owned Mayfair Limited in Australia (Anne Street Partners Financial Services and QNV Constructions), and the International Electrotechnical Commission (IEC). Stone is also Deputy Chairman of UK AIM listed Impellam Plc (top 20 labour hire companies in Europe) and Chairman of Impellam subsidiaries in Australia (Medacs and Commensura). In

addition to Thiess Australia, Stone was also PT Thiess Indonesia, Chairman of Energex Limited (QLD Government owned power distributor) and owner and Executive Chairman of the APAC Group of companies (DEIAA n.d.).

Another member of the Northern Australia Advisory Group is Wayne Bergmann. Truss' media release revealed that Bergmann had served as the Executive Director of the Kimberley Aboriginal Law and Cultural Centre Chief Executive Officer of the Kimberley Land Council (KLC) and Chief Executive Officer of KRED Enterprises (Truss 2014). His roles in these positions have also been marked by corruption.

The KLC was brought under national spotlight in 2011 on the issue of gas processing at James Price Point (50 kilometres north of Broome; on Aboriginal land), what would be Australia's biggest LNG refinery (Collins 2011). The first named native title claimant for James Price Point when the site was selected for LNG processing had been Joseph Roe. However, once negotiations began and Roe was identified as 'anti-gas' and accordingly, in a position to block the \$30-billion-dollar project, he was replaced as the first named claimant by 'pro-gas' Anthony Watson (Collins 2011). This process, like most native title processes in Kimberly, was facilitated by the KLC, which was set up for 'the benefit of all Kimberly Aboriginal people and works with about 25 native title groups to get native title recognition, protect and enhance the high biodiversity values of the region, pursue cultural enterprise development and work to improve our socioeconomic circumstances' (KLC 2019). At the time, Watson was a director on the board of the KLC.

Bergmann resigned as the CEO of the KLC in March 2011 to take up the position as the CEO of the new KLC owned development company, KRED Enterprises. He was appointed to the position by the KLC board (Collins 2011). Bergmann said that KRED would not be involved in any projects around James Price Point in order to avoid being accused of 'feathering his own nest' (Prior 2011). However, the Chairman of KRED was Anthony Watson, KLC director and first named claimant for James Price Point. Despite resigning as KLC CEO, Bergmann retained his role as Chief Negotiator for the Goolarbooboo Jabirr Jabirr traditional owners who gave consent for the taking of land at James Price Point in May 2011 (Collins 2011). The plans to operate a gas plant at James Price Point were not successful in the end but Bergmann's stakes in the project were clear.

The third member of the Advisory Group is Jack Burton, managing director of Yeeda Pastoral Company with over 60,000 cattle, three pastoral leases in the Goldfields and a farming business in Geraldton at the time of Truss's statement (Truss 2014). In October 2016 Burton sold more than 400,000 hectares of his pastoral land to the Chinese real estate conglomerate Shanghai CRED for \$2 million. Shanghai CRED is also a part of Gina Rinehart's \$365 million joint bid for the Kidman cattle estate (Varischetti and Prendergast 2016).

Dr. Ken Chapman is the fourth member of the Advisory Group and Executive Director of the Chapman Group (Truss 2014). The Chapmans are one of the richest families in Queensland, with a net worth of \$259 million in 2014. They are most known for their Skyrail Cableway near the World Heritage-listed rainforest in Cairns (Dalton and Passmore 2014). During a

Business Advisory Council meeting in Townsville in May 2017, Chapman demanded that the Queensland government intervene to reduce power costs, claiming that they may soon be forced to build a solar farm to remain competitive in the international fish market (Townsville Bulletin 2017).

Stone, Reddy, Bergmann, Burton and Chapman, are all members of the Advisory Group that instructed the White Paper on Developing Northern Australia and they are all invested in energy development. The influence of energy sector businessmen in developing the federal government's policy directions, which includes future energy projects, demonstrates Miliband's (1969: 69) instrumentalist model of the capitalist state (described in the previous chapter): The authors of the White Paper, which sets out the state's plans to develop the north, are or have been stakeholders of organisations or corporations that would benefit from the state following the plan they wrote. The state is thus functioning to serve capitalist interests, as Miliband (1969) argued (see previous chapter).

The self-interpretation of NAIF criteria

Senator Matt Canavan created the North Australia Infrastructure Facility during his term as the Minister for Northern Australia (from 18 February to 19 July 2016). The NAIF was passed by Parliament on 3 May 2016 and established in Cairns on 1 July 2016 as the 'Northern Australia Infrastructure Facility Act 2016'.

According to the Australian Department of Industry, Innovation and Science, the NAIF is supported by the Export Finance and Insurance Corporation (Efic), Australia's export credit agency Efic partners with Australian banks in order 'to provide financial solutions for: small and medium enterprises (SMEs) that are exporters; Australian companies in an export supply chain; Australian companies looking to expand their business operations overseas to better service their clients; and Australian companies operating in emerging and frontier markets' (The Australian Government, n.d. a; The Australian Government n.d. b) The NAIF was designed to provide up to \$5 billion over 5 years in 'concessional finance' to encourage and complement private sector investment, including developments in energy, ports, rail and water, in infrastructure that may benefit Northern Australia. There are several mandatory criteria for NAIF finance and preference is given to projects which also meet one or both of the non-mandatory criteria.

Canavan is a vocal supporter of Adani's Carmichael Project, a project that he and other members of the Australian government argue as meeting all of the NAIF's criteria. Although the NAIF is described as a legally independent body, it is also a government policy and thus subject to the state's interpretations of terms in the criteria, as written by Canavan. In the same way that a state's harmful act does not constitute a crime unless it is written in the legal code of the state, by coding the terms of the criteria necessary to receive funding under the NAIF, the state has created a legal avenue for investors to seek public funds for projects, from which certain members of the state may also financially benefit. The NAIF's criteria and arguments for the Carmichael Project made by Adani and the Australian state illustrate this point. There are seven "Mandatory Eligibility Criteria" and two "Non-Mandatory Eligibility Criteria" that

a Project is expected to have established in order to receive funding under the NAIF (The Australian Government n.d. c).

The first Mandatory Eligibility Criteria for a project to receive NAIF funding is: *‘The project involves the construction or enhancement of economic infrastructure’*.

Through this criterion, the state is able to make the claim that in order for a project to qualify for public funding through the NAIF, it must include infrastructure – an important asset for the future economic development of Northern Australia, as stated in the White Paper on Developing Northern Australia. The key element of this criterion is the use of the word ‘infrastructure.’ Identifying the type of infrastructure as ‘economic’ broadens the criteria to include any facility that makes *any* business activity possible. The Carmichael Project’s Environmental Impact Statement (EIS) was used to show that it successfully meets this criterion. According to the EIS (Adani Mining Pty Ltd 2012a: 2), the Project comprises of two major components:

The Project (Mine): a greenfield coal mine over EPC1690 and the eastern portion of EPC1080, which includes both open cut and underground mining, on mine infrastructure and associated coal processing facilities (the Mine) and the Mine (offsite) infrastructure including:

- A workers’ accommodation village and associated facilities (including: industrial area and rail siding)
- A permanent airport site
- Water supply infrastructure

The Project (Rail): greenfield rail lines connecting the Mine to the existing Goonyella and Newlands rail systems; including:

- Rail (west): a 120 km dual gauge portion from the Mine site running west to east to a junction with proposed lines running south-east to the Goonyella rail system and north-east to the Newlands rail system
- Rail (east): a 69 km narrow gauge portion connecting to the Goonyella rail system south of Moranbah to provide for export of coal via the Port of Hay Point (Dudgeon Point expansion)”.

It is obvious from the definition of the Carmichael Project that it is a proposal for ‘infrastructure’ to be built. However, whether or not there will be any economic benefits from this infrastructure being built has been contested in state and federal court (see Chapter Three). At the time of its application for the NAIF loan, Adani had not completed its royalties package, making the financial benefit to Australia uncertain. The number of jobs that would result from the Carmichael Project has also been challenged and found in court to be approximately ten times less than Adani’s original figure of 10,000. There is also the question of whether the potential economic benefits outweigh the potential resulting harms. Yet because of the

government's denial of these harms (as discussed in Chapter Six), the government is able to maintain that the Project meets this first criteria.

The second Mandatory Eligibility Criteria is: *'The project will be of public benefit'* (The Australian Government n.d. c).

'Benefit,' synonymous with 'advantage' or 'value,' can be claimed in various ways. It has been argued by Adani and Australian government officials at the state and federal level that the Carmichael Project will benefit Australian and Indian citizens, economically and morally. Adani Australia Chief Executive, Jeyakumar Janakaraj, for example, has stated:

This is a significant commitment by Adani to regional Queensland where the Carmichael mine and associated projects will generate 10,000 jobs directly and indirectly, and I am pleased that each of the regional centres will benefit from the Carmichael projects (Schliebs 2016).

Minister for the Environment and Energy, Josh Frydenberg, has also supported the script that the Carmichael Project will be of public benefit:

Most importantly of all [the Carmichael Project] will help lift hundreds of millions of people out of energy poverty, not just in India but right across the world (Kelly 2015).

Once again, the criteria of the NAIF can be argued as being 'met' or 'unmet' depending on stakeholder interests. In this case, since government officials have previously gone on record publically declaring that the Carmichael Project will be beneficial to the Australian (and Indian) public, government officials can later state that the Project meets this criterion and is thus eligible for public funding. By creating a sustained campaign of disinformation regarding the Project's benefits, the statements made by Adani officials – who have clear interests in seeing the Project approved – are endorsed by state representatives. This results in the 'official' script regarding the Carmichael Project to be one that offers the public immense benefits and thus should be eligible for public funding through the NAIF.

The third Mandatory Eligibility Criteria for NAIF funding is: *'The project is unlikely to proceed, or only at a much later date, or with limited scope, without NAIF financial assistance'* (The Australian Government n.d. c).

The question that should be asked in assessing whether a project meets this criterion is, "why would the project otherwise be unlikely to proceed?" Given that the purpose of the NAIF is to fund infrastructure developments in energy, ports, rail and water, the applicants for a loan through the NAIF would always be a corporation with enough capital to self finance or receive a loan through another lending institution, such as a bank. This assumption is corroborated by the fifth mandatory eligibility criterion, which states that the NAIF cannot be the primary source of funding, eliminating the ability for start-ups or other small businesses to apply for the NAIF loan if they would rely on the loan to finance their project. Adani itself had sought financing with Australian and international banks before seeking assistance through the NAIF. Once NAIF funding was ruled out for the Carmichael Project, Adani announced it would self-

finance a smaller version of the original plans for the Project (see Chapter Three). So if the answer to the question of ‘why would the project otherwise be unlikely to proceed’ is ‘due to rejection of other lenders’ loans’, the third criterion can be justified as being met. This rationale, however, begs the question of *why* other financial institutions would choose not to fund the project in question. In the Carmichael case, the four major banks in Australia, as well as international banks, decided not to lend Adani money because of pressure they faced from activist protests citing the environmental destruction the Project would produce.

Also given that the purpose of NAIF is to fund infrastructure developments in energy, ports, rail and water and that such projects must meet the criteria and gain approval under various state and federal legislation in order to be permitted to proceed, it is possible that a project would be unlikely to proceed due to another issue, unrelated to finances. For example, it could be argued that the Carmichael Project would be unlikely to proceed because of the UNESCO World Heritage Committee’s report which listed climate change as “the most significant overall threat” to the reef and encouraged Australia to accelerate its efforts to improve water quality (Wahlquist 2017). Australia, as a member of the World Heritage Convention, has a responsibility to protect and conserve world heritage sites. Since the Carmichael Project has shown to be of detriment to the health of the Great Barrier Reef through its negative effects on climate change, this could be one reason why the Project would be “unlikely to proceed.” Granting funding through NAIF, especially for those projects that would otherwise be unlikely to proceed, is therefore a conflict in the democratic process. This criterion allows the government to side-step previous recommendations regarding a project if the recommendation is not in agreement with the views of the state.

The fourth mandatory criteria is: ‘*The project is located in, or will have a significant benefit for northern Australia*’ (The Australian Government n.d. c).

While it is undisputable that the project is located in northern Australia, the second half of this criterion is open for debate. Northern Australia refers to all of the Northern Territory and those parts of Western Australia and Queensland above the Tropic of Capricorn. The Carmichael Project, which would involve the mining of coal reserves in the Galilee Basin and transportation of the coal via railway to Abbot Point, would operate above the Tropic of Capricorn. This successfully meets criterion four of the NAIF scheme since “having a significant benefit for northern Australia” must only be proven if the project is not located in northern Australia.

The fifth mandatory criterion is: ‘*NAIF’s loan is not the majority source of debt funding*’ (The Australian Government n.d. c).

The sources of funding for the Carmichael Project remain unclear. Multiple banks have stated that they will not fund the Project (Robertson 2017a). Adani has also not been able to secure any loans from international lenders. This suggests that Adani may have to rely solely on NAIF for the operation of the Carmichael. It is thus uncertain how the Carmichael Project could have met this criterion, as it only suggested self-financing the mine after rejection of a NAIF loan.

The sixth criterion is: '*The loan will be able to be repaid or refinanced*' (The Australian Government n.d. c).

It is assumed that as a multinational corporation, Adani would be able to repay or refinance the NAIF loan. However, the Left and the Right factions of the Palaszczuk cabinet has disagreed on the royalties for the Adani mine. Premier Anastacia Palaszczuk and Treasurer Curtis Pitt have led negotiations for a "royalties holiday" for the Carmichael Project. Adani had postponed its final investment decision while it sought a royalties agreement that involved a "sliding scale" which would allow it to pay the royalties in an agreed schedule (Aston 2017). The Australian Institute claimed the royalties holiday "would effectively give Adani free coal for five years and discounted coal for another four," costing Queensland nearly \$1.2 billion in revenue (Willacy 2017). Adani's comments cited the state government's use of royalty agreements across all political spectrums and reminded the public that while the Carmichael project will pay billions in royalties and corporate taxes, "importantly" it will also generate 10,000 "direct and indirect jobs in regional Queensland" (Willacy 2017). This debate lasted five days, from 20-25 May 2017 before it was settled that the Palaszczuk government would not give Adani a royalties holiday and that it would require the full payment of royalties from the mine (Caldwell 2017). The controversy, although it does not involve the NAIF, illustrates Adani's willingness to pressure the government in matters that may lead to some financial benefit. The repayment or refinancing of NAIF funding involves a potential \$1 billion in financial benefit for the company, depending on the terms of the agreement. Therefore, since Adani would have \$1 billion "to lose" if it does *not* attempt a negotiation of repayment terms in its favour, there is a chance that this loan would not be paid out as intended by the government. This criterion can be seen as unfulfilled, yet the government – in charge of determining whether the criterion is fulfilled (and also with interests in the operation of the Carmichael Project) – has claimed otherwise.

The last mandatory criterion is: '*Indigenous engagement strategy*' (The Australian Government n.d. c).

The ambiguity surrounding the term "engagement" benefits the Carmichael Project here. The Wangan and Jagalingou People, who officially have the rights to the Galilee Basin region since having their native title claim recognised in 2004, have been involved in legal proceedings over Adani applying for mining leases on their land since the company first applied for them in October 2014. In April 2015, the National Native Title Tribunal granted Adani two mining leases despite Adrian Burragubba, one of the traditional owners, being opposed to the land being used for mining (Medhora 2017). He brought a legal challenge against the mine, which was dismissed in August 2016. However, a Federal Court ruling in Western Australia known as the McGlade decision found that a land use agreement is invalid if it is not signed by all native title claimants. Mr. Burragubba used this case as his basis for appeal against the mining licenses. The government responded by proposing a bill that would change the Native Title Act in order to ensure the Carmichael Project would proceed. Attorney General Brandis unsuccessfully attempted to rush through the debate on the bill in April 2017. The Labor Party was divided over the Project – Opposition Leader Bill Shorten promised Adani that the party would support the native title changes while at least three backbenchers have spoken against

the mine (Medhora 2017). Meanwhile, Adani has included in its proposal for the Project an “Indigenous and Non-Indigenous Cultural Heritage” assessment, written by CDM Smith Associates. The assessment details some potential impacts and mitigation measures, stating that “While avoidance of cultural heritage and leaving material on country is the highest priority, the nature of Mine construction and operations means that this is not always practical” (CDM Smith n.d.). With regard to the Native Title, the document states the four areas of the Project that involve Indigenous Land Use Agreements:

1. The Project (Mine) and first 17 km of the Project (Rail) are located within the external boundaries of the Wangan and Jagalingou People registered native title claim (QUD85/04, QC04/6);
2. Approximately 145 of the Project (Rail) is located within the external boundaries of the Jangga People registered native title claim (QUD6230/98, QC98/10);
3. Approximately 17 km of the Project (Rail) is located within the external boundaries of the Barada Barna Kabalbara and Yetimarla People #4 (BBKY #4) former registered native title claim (QUD6023/01, QC01/25); and
4. Approximately 3 km of the Project (Rail) is located within the external boundaries of the Barada Barna People registered native title claim (QUD380/08, QC08/11) (CDM Smith n.d.: 5-10).

The section concludes with a declaration of progress over these native title negotiations. Due to the ambiguity of the meaning of “Indigenous engagement strategy,” simply the listing of native title negotiations may be enough to satisfy the last of the mandatory eligibility criteria, just as ordering research plan (without undertaking the research) on the Great Artesian Basin Springs and the Formation connectivity before commencing excavation of the first box cut was enough for the court to approve the Project (see Chapter Three).

The first of the Non-Mandatory Eligibility Criteria is: *‘The project is seeking finance from NAIF for an amount of at least \$50 million’*.

This is met; the Carmichael Project is seeking \$1 billion from NAIF. However, this raises the question of why Adani would need one billion taxpayer dollars if the mine is financially viable.

The second criterion is: *‘There is an identified need for the project’*.

Once again, this criterion has been described as being met by the state and corporation and unmet by the scientific community and environmental activists. The justifications are similar to those for the second mandatory criterion of whether the project is of public benefit. If it is argued that the project would in fact contribute some benefit to the public, then it can also be argued there is an “identified need” for the project (i.e. in terms of jobs or economic infrastructure, for example). The criteria for receiving public funding through NAIF serves as a legal checkbox that can be ticked once the state decides that it wants a project to proceed. Creating publically available criteria allows for the appearance of government transparency regarding the use of public funds. The script provided by the criteria is one that claims the

government won't just fund just *any* project – the project must meet these specific requirements. Yet, as the Carmichael Project demonstrates, the language of the criteria can be manipulated in order to claim a project's compatibility with the funding scheme.

It is ultimately the NAIF Board that decides whether or not public funds can be given to private corporations for an infrastructure project. This is problematic because conflicts of interest involving NAIF, as supported by Efic, were uncovered by Environmental Justice Australia. Two board members were found to have connections to mining companies that would benefit from the approval of the Adani mine: Annabelle Chaplain was a board member of Efic and also a director of Downer EDI, which has a \$2 billion commercial agreement with Adani for the drilling, blasting, and coal haulage at the Carmichael Mine. Karla Way-McPhail was a NAIF board member and chief executive of two companies that are involved with the mining industry; Undamine Industries, which hires out labour and machinery for mining operations, and Coal Train Australia, a mining company based in central Queensland. (Willacy and Blucher 2017) Efic and NAIF both released statements that said its directors are aware of their obligations regarding disclosure of conflicts of interest but did not comment on whether or not Chaplain or Way-McPhail would recuse themselves from decisions regarding Adani. NAIF rejected ABC's Freedom of Information request for the dates and locations of its board meetings, with the chief executive claiming that the release of this information would adversely affect NAIF's operations by creating media attention and protest activity (Willacy and Blucher 2017). Efic board secretary, John Hopkins, stated that no Efic directors had any need to recuse themselves from Efic's discussions concerning NAIF since the Efic Board "was not required to have, nor does it have, any actual knowledge of the projects NAIF is considering" (Robertson 2017c). Hopkins' claim that Efic is a "service provider," not the "decision maker" on "specific transactions" made by the NAIF board (Robertson 2017c).

This system of self-interpreting criteria in order to self-allocate money that will eventually be self-beneficial exemplifies Miliband's (1969: 69) theory of how the state functions to serve capitalist interests:

[I]t is easy to understand why governments should wish to help business in every possible way, yet do not at all feel that this entails any degree of bias towards particular classes, interests and groups. For if the national interest is in fact inextricably bound up with the fortunes of capitalist enterprise, apparent partiality towards it is not really partiality at all. On the contrary, in serving the interests of business and in helping capitalist enterprise to thrive, governments are really fulfilling their exalted role as guardians of the good.

Greens MP Larissa Waters has criticised the NAIF, stating that it was 'not about encouraging investment in Northern Australia [but] creating a slush fund to prop up the dying coal industry' (Robertson 2017d). The businessmen have colluded with statesmen to justify the use of public funds for the Carmichael Project, despite scientific reports on the Project's harms and despite the majority of the citizens' desires to stop Adani from building in Queensland. The next chapter will demonstrate that such collusion should be understood as criminal.

Conclusion

This chapter described the Australian mining legislation and mining legislation in Queensland, and the collusion between the state and corporation for the Carmichael Project approval. The collusion began with Adani and the state's lies, denying the public the truth about the threat that the Carmichael Project has on the environment, endangered animal species and climate change. By denying the harms, two opposing narratives regarding the Project were forged: the truth, as told by the scientific community, and the untruth, or the story invented by those who stand to benefit from the Project's operation. This latter narrative was then used to gain the necessary approvals for the Carmichael Project. Since the stakeholders, who stand to benefit from the operation of the Project, are situated in positions of power within the state, environmental legislation has been able to be engineered to make exceptions for the Carmichael Project. One example of this was Adani's evasion of standard procedure for the environmental authority needed to mine in Queensland. Further collusion has been discovered in the conflicts of interest of the authors of the legislation that would have given Adani \$1 billion of public money for the mine, the North Australian Infrastructure Facility, or NAIF.

The NAIF appears to have been established out of a political priority. The Australia Institute (2017) has pointed out: "NAIF does not have internal policies and procedures for application and assessment. The Minister says that there is 'not really a formal submission or application process' but 'discussions that occur'". The absence of formal procedure creates a high-risk environment. Projects that may not be viable are able to be considered due to the members of the Board's conflicts of interests and links to the mining industry.

The Carmichael Project can be understood as a state-corporate crime because of the government and Adani's collusion – incidents of fraud, or dishonestly [seeking to] obtain a benefit by deception – as the Australian Government defines it. The collusion involved greenwashing and denial of the harms of the Project; the manipulation of environmental regulations; and the government's role as an enabler for industry despite its duty to act as the keeper of public spaces and the environment.

From an organisational perspective, the chapter demonstrates that there are both instrumental and structural forces at play in the constitution of state-corporate crime. For instance, the state is instrumentally engaged in facilitating capitalist development in the form of appointments of officials who are intrinsically linked to the capitalist enterprise in some way (ideologically and/or via employment history). However, the actions of the state in this regard can also be explained as due to structural factors such as the need for legitimacy in circumstances where particular regions of Queensland are suffering disproportionately high levels of unemployment. These structural pressures provide the context within which governments – as strategic economic actors – may find political purchase in backing particular business developments regardless of poor environmental outcomes.

The next chapter describes explains why this particular instance of state-corporate crime can be understood as a crime of Ecocide.

Chapter Nine

THE CRIME OF ECOCID

The threats to man's existence from nuclear warfare can be avoided right up until the moment someone pushes the button; but the threat to man's survival which derives from our interventions in our natural environment is of a different nature. Here each of us has his finger on the button, and this responsibility requires us to act now to avoid dangers which will not materialize until the next generation or beyond – but still within the lifetime of our own children or grandchildren – and will be beyond remedy by the time they are perceived as imminent threats. To deal with issues which involve cause and effect relationships so far removed from more immediate and pressing priorities will require a degree of enlightened political will on the part of the peoples and nations of the world that is without precedent in human history (Strong 1971).

'Man has consciously and unconsciously inflicted irreparable damage to the environment in times of war and peace' (Draft Ecocide Convention 1973, cited in Falk 1973: 93).

Introduction

The destruction of the environment in ways that adversely affect humans, non-human species and ecosystems can be conceptualized as a specific type of crime: ecocide. Ecocide describes an attempt to criminalise human activities that destroy and diminish the wellbeing and health of ecosystems and species within these (Higgins 2012; Higgins et al. 2013). Where this occurs because of human agency, then it is purported that a crime of international significance has occurred.

This chapter follows a discussion of the key players in the debate over the approval and operation of the Carmichael Project; its environmental harms; and the justifications and denials of these harms that are perpetrated as a result of state-corporate collusion. The purpose of the chapter is to first explore the development of ecocide as a concept and then as a crime that affects humans, non-human animals, plant life, ecosystems, and abiotic elements of the biosphere such as rivers and mountains. This chapter also discusses a proposed possible *Ecocide Act* (2010), as authored by UK lawyer, Polly Higgins, that would constitute the 5th International Law Against Peace. Elements of this proposed *Ecocide Act* are discussed in light of the Carmichael Project. The chapter will show how an international law against ecocide would have first prevented the Carmichael Project's approval but also would bring accountability to those decision-makers who approved its operation, if the operation resulted in ecocidal harms to the environment.

A History of Ecocide

The term 'ecocide' emerged during the time of the Vietnam War. Historically during wartime, 'the other side' is accused of committing atrocities that violate the principle of *jus in bello* or justice in war. Citizens and activists who opposed the Vietnam War were faced with the same question: namely, how to convey to others that the war – and the environmental catastrophes resulting from the herbicidal warfare program (i.e. the use of Agent Orange in Operation Ranch Hand) – was illegal. To challenge American intervention in Vietnam required an articulation of particular actions as uniquely illegal and that could thereby also be used in tackling the legitimacy of the war as a whole.

Accordingly, a group of American scientists coined the term 'ecocide'. At the 1970 Conference on War and National Responsibility in Washington, Professor Arthur W. Galston proposed a new international agreement to ban ecocide (Gauger et al. 2012). Ecocide presented one of the many varieties of the idea that aspects of the Vietnam War violated international law. The scientists' critique was one of a kind in two ways: first, the accusation was made against their own government – not the 'other side'; and second, this particular movement against ecocide was foundational in the later establishment of US national policy that renounced the use of herbicides in future wars (Zierler 2011).

The term 'ecocide' became more popular during the opening speech of the 1972 United Nation's Stockholm Conference on the Human Environment, when the prime minister of Sweden at the time, Olaf Palme, explicitly referred to the Vietnam War as an instance of ecocide (Gauger et al. 2012). The Stockholm Conference was the first international meeting that focused on environmental issues, including trans-boundary pollution (Gauger et al. 2012). It "highlighted the fact that pollution does not recognise political or geographical boundaries, but affects territories, countries, regions, and people beyond its point of origin" (Gauger et al. 2012: 5). Although the conference did not include the term in any of its official documents

(Malhotra 2017), it was an important milestone in environmental governance as the Conference established the UN's Environmental Programme (UNEP).

Although ecocide was not yet legally defined, scholars at this time were debating what would constitute the crime. The element of intent to commit destruction of ecosystems was particularly important. For example, Professor Richard A. Falk (1973), an expert on international law of war crimes, wrote, 'man has consciously and unconsciously inflicted irreparable damage to the environment in times of war and peace'. Meanwhile, Dr. Arthur H. Westing, a biologist, stated that 'intent may not only be impossible to establish without admission but, I believe, it is essentially irrelevant.' (Westing 1974).

The increased debate around the concept of ecocide along with an increase in environmental awareness during the 1970s led to a pressure on governments to address the issue (Higgins et al. 2013; Gauger et al. 2012). The UN led an inquiry into how the 1948 Convention on Genocide could be improved, including criminalising ecocide alongside genocide (Mehta and Merz 2015). The International Law Commission (ILC) considered adding an environmental crime to the Draft Code of Crimes against Peace and Security of Mankind ('the Code'), which later became the Rome Statute – the foundation for the International Criminal Court (Malhotra 2017). The ILC included in Article 26 of the Code that 'an individual who wilfully causes or orders the causing of widespread, long-term and severe damage to the natural environment shall, on conviction thereof, be sentenced...' (Gauger et al. 2012: 9). The governments of Australia, Belgium, Austria and Uruguay, however, openly criticized the use of word 'wilfully', which presupposes intent. These governments argued that ecocide during peacetime is often a crime without intent as it occurs as a by-product of industrial and other activity and successfully led the ILC to remove Article 26 from the Code (Gauger et al. 2012).

The version of the Code adopted by the ILC mentions the intentional creation of 'widespread, long-term and severe damage to the natural environment' *during a war* under Article 8 of the Rome Statute (UN General Assembly 1998):

Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.

As it stands, the Rome Statute's Article 8 is the only stipulation in international criminal law that can hold a person responsible for environmental destruction. However, Article 8 limits the crime to wartime and situations of intentional damage; conditions of applicability that are difficult to meet (Freeland 2015).

A 2016 Cambodian case involving land grabbing and forced evictions, however, led to the widening of the ICC mandate. The Office of the Prosecutor announced that it will 'give particular consideration to prosecuting Rome Statute crimes that are committed by means of, or that result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land' (Vidal and Bowcott 2016). Considering a case involving environmental destruction during peacetime suggests a shift within the ICC to recognise violence committed against nature (Lay 2016). Global Diligence LLP, a London-based human rights law firm stated this decision will allow the ICC to consider environmental

crimes and that company executives or politicians could now be held responsible under international law for illegal land deals (Arsenault 2016).

Nevertheless, the International Criminal Court statement does not expand Article 8 to include environmental crimes during ‘peace-time’ nor does it address the issues surrounding intent. It thus remains to be seen how the Prosecutor’s statement will be interpreted into action. While the ICC has limited power in enforcement, especially for states such as the USA that are not signatories to the Rome Statute, the ICC’s statement nonetheless has the potential to shift corporate culture. The prospect of imprisonment under criminal law changes the relationship with the precautionary principle; the prospect of an international criminal court hearing may well affect corporate behaviour (Lay 2016). The ICC’s statement appears to be a step forward for an expanded international law against ecocide.

In addition to the Code, The ILC also drafted international articles on state responsibility, adopting a provision linking state responsibility and damage to the environment in 1976. This provision, Article 19 of the International Crimes and International Delict, states:

3 [A]n international crime may result, inter alia, from: (d) a serious breach of an international obligation of essential importance for the safeguarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas.’ (Gauger et al 2012).

Another draft article prepared by the ILC dealt with international liability for transboundary harm ‘carried out in the territory or otherwise under the jurisdiction or control of a State’; injurious consequences arising out of acts not prohibited by international law (Gauger et al. 2012: 11). A provision of this article defines environmental damage as an international crime: ‘a serious breach of an international obligation of essential importance for the safeguarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas’ (Yearbook of the ILC 1980, Vol. II, Part 2, p.32, as cited in Gauger et al. 2012: 12). However, state liability for transboundary harm was later reviewed and changed to refer to damage done to the environment by events such as ‘the pollution of the air, sea or rivers, consequences of nuclear pollution, or oil spills’ (Gauger et al 2012: 13).

Ecocide as a Crime

Although the UN did not recognise ecocide as a crime, several states adopted the draft Crimes Against Peace into their own penal codes. Table 9.1 describes when each country did so and how ecocide was defined.

Table 9.1 Existing Crimes of Ecocide

Year	Country	Crime of Ecocide
1990	Vietnam	Article 278 of the Penal Code: “‘Ecocide, destroying the natural environment,’ whether committed in time of peace or war, constitutes a crime against humanity”
1996	Russian Federation	Article 358 of the Criminal Code: “massive destruction of the fauna and flora, contamination of the atmosphere or water resources, as well as other acts capable of causing an ecological catastrophe, constitutes a crime against the peace and security of mankind”

1997	Kazakhstan	Article 161 in the Penal Code: “mass destruction of the fauna or flora, pollution of the atmosphere, agricultural or water resources, as well as other acts which have caused or are capable of causing an ecological catastrophe, constitutes a crime against the peace and security of mankind”
1997	Kyrgyzstan	Article 374 of the Criminal Code: “mass destruction of the flora and fauna, poisoning of the atmosphere or water resources, as well as other acts capable of causing an ecological catastrophe, is punishable by deprivation of liberty”.
1998	Tajikistan	Article 400 of the Criminal Code: “mass extermination of flora or fauna, poisoning the atmosphere or water resources, as well as other acts capable of causing an ecological catastrophe, constitutes a crime against the peace and security of mankind”.
1999	Georgia	Article 409 of the Criminal Code: “Contamination of atmosphere, land and water resources, mass destruction of flora and fauna or any other action that could have caused ecological disaster – shall be punishable by imprisonment extending from eight to twenty years in length”
1999	Belarus	Article 131 of the Criminal Code: “mass destruction of the fauna and flora, pollution of the atmosphere and water resources as well as any other act liable to cause an ecological disaster”
2001	Ukraine	Article 441 of the Criminal Code: “Mass destruction of flora and fauna, poisoning of air or water resources, and also any other actions that may cause an environmental disaster, – shall be punishable by imprisonment for a term of eight to fifteen years”
2002	Republic of Moldova	Article 136 of the Penal Code: “the deliberate and massive destruction of the fauna and flora, the pollution of the atmosphere or poisoning of water resources, as well as other acts capable of causing an ecological catastrophe, is punishable by deprivation of liberty”
2003	Republic of Armenia	Article 394 of the Criminal Code: “Mass destruction of flora or fauna, poisoning the environment, the soils or water resources, as well as implementation of other actions causing an ecological catastrophe, is punished with imprisonment for the term of 10 to 15 years”

Source: adapted from Higgins 2010

Interestingly, each of these countries has a communist history and adapted the ecocide provisions into their transition to various forms of capitalism, borrowing the wording of Article 26 of the ILC, which refers to ‘intentionally’ causing harm. None of the countries have prescribed a procedure to measure intention, however. The effectiveness of these provisions would depend on factors such as the procedures for enforcement, an independent judiciary and respect for rule of law. Transparency International ranks many of these countries highly for corruption and low for respect of the rule of law (Transparency International 2019).

Discussions with the UN over developing the Law of Ecocide have lasted over a decade. Much of the background work is already in place and, based on the term’s history and debate as well as the adoption of ecocide into the criminal/penal codes of states around the world, it can be concluded that a part of the international community approves of the legal concept. There are, however, a number of conceptual complexities that arise from the use of ‘ecocide’ as a criminal act.

Ecocide as a criminal offence can be conceptualised by distinguishing between perspectives that privilege humans and human wellbeing in its definitions of harm, with those that include the non-human in its conceptualisations. Doing wrong and harming others is anthropocentrically framed and its basic considerations stem from and reflect the human rights paradigm (MacCarrick 2016). Ecocide in this sense complements the existing approach of the Rome Statute that deals with crimes against humanity and crimes against peace. Protection of human rights is paramount and this includes protections pertaining to one's living environment. Thus, the demise of environmental amenity and security is considered a derogation of the duty to protect and enhance human rights, including the right to ecosystem services upon which human populations rely (MacCarrick 2016).

Other conceptions of the crime of ecocide, however, see it as premised on the idea of Earth stewardship. Ecocide in this instance is closely aligned with the concept of ecocentrism that views the environment as having value for its own sake, apart from any instrumental or utilitarian value to humans (Berry 1999; Williams 2013). Ecocentrism views non-human animals, plants and rivers as rights holders and/or as objects warranting a duty of care on the part of humans (Schlosberg 2007; Fisher 2010).

Establishing the crime of ecocide is motivated by the need to respond to a singularly important trend: the existing planetary environment is rapidly being destroyed. Fundamentally, this stems from the systemic extraction and contamination of natural resources. One consequence is the diminishment of ecosystem services. As the global temperature steadily increases, the rampant plunder of resources and widespread pollution results in the whole planet inexorably moving toward a radically altered ecological state. The victims are biotic (living creatures and plants) and abiotic (living landscapes), and include humans as well as non-human environmental entities (such as animals and rivers).

While no one and nothing can escape the violent impact of the transgressions presently impinging upon the biosphere, ecocide does not affect everyone and everything equally. Violence to the environment, for example, begets further violence within human communities. Diminished human security stems from the bio-physical and socio-economic consequences of various sources of threat and damage to the environment, including climate change (South 2012). Shortages of food, water and non-renewable energy sources can trigger criminal activities involving organised criminal networks, transnational corporations, and governments at varying political levels (White 2014b).

Ecocide is not socially (or ecologically and species) neutral. There are winners and losers in the contestations over natural resources. It is the poor, the marginalised, the dispossessed and the vulnerable that bear the brunt of environmental destruction. In this, the victims are human and non-human, living and non-living, as human rights are ignored and landscapes devastated. For example, Indigenous people reliant upon clean water and arable lands for their livelihoods suffer greatly when large industrial projects – such as the Alberta Tar Sands project in Canada – impact their forests, rivers and soils (Short 2016). Children are more likely than adults to be seriously affected by air pollution and water contamination stemming from activities that harm the environment (Stephens 1996).

It is the rich, the corporate, the elite and the powerful who stand to gain most from the suffering of others and the demolition of formally intact and sustainable ecosystems. In pursuit of the ownership and control over natural resources, and to exploit these for particular purposes,

governments and companies have singularly and in conjunction with each other worked to break laws, bend rules and undermine participatory decision-making processes. Sometimes this takes the form of direct state-corporate collusion (state-corporate crime); in other instances, it involves manoeuvring by government officials or company executives to evade the normal operating rules of planning, development, and environmental impact assessment (White 2017a). The appropriation of resources in specific bio-social locations is leading to a proliferation of ownership contests (e.g., disputed islands involving China, Vietnam, the Philippines, and Japan; re-drawing of boundaries in the Arctic among border states such as Russia, Canada, Norway and the United States) (Brisman 2013). The violence of war lurks behind the efforts of powerful interest groups to control natural resources.

Those who are central in causing the problem are also those least likely (at least initially) to suffer the consequences of their actions. Yet, a consequence of the actions and omissions of the few is that violence and crime will pervade the lives of the less powerful and vulnerable people of the world. For the perpetrators of the harm, however, justice is rarely applied nor the crimes officially recognised as ‘crimes’.

The 5th International Crime Against Peace

In April 2010, Polly Higgins, a Scottish advocate and leading expert in ecocide, submitted a draft law of Ecocide to the United Nations Law Commission (Higgins 2010). The draft *Ecocide Act 2010* proposed Ecocide as the 5th International Crime Against Peace, with ‘Ecocide’ defined as:

The extensive loss or damage or destruction of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that: (1) peaceful enjoyment by the inhabitants of has been or will be severely diminished; and or (2) peaceful enjoyment by the inhabitants of another territory has been severely diminished (Higgins 2012: 159).

This definition contains several concepts that require further explanation. The Prohibition of Military or any other Hostile Use of Environmental Modification Techniques (ENMOD), an international treaty which aims to prohibit the use of environmental modification techniques (for example, weather modification), defines ‘widespread’, ‘long-lasting’ and ‘severe’ in the context of environmental damage: ‘Widespread’ involves an area of several hundred kilometres; ‘long-lasting’ encompasses a season or period of a couple of months; and ‘severe’ involves ‘grave disorder or maltreatment to economic and natural resources, human life, and other resources (Gauger et al. 2012: 9).

‘Peaceful enjoyment’ is a legal term that originates from civil law. The legal definition is ‘a covenant that promises that the grantee or tenant of an estate in real property will be able to possess the premises in peace, without disturbance by hostile claimants’. Peaceful enjoyment in light of Higgins’ (2010) definition of ecocide means ‘peace, health and cultural integrity’.

Higgins (2010) defines ‘territory(ies)’ as ‘one or more of the following habitats, unrestricted by State or jurisdictional boundaries: (i) terrestrial, (ii) fresh-water, marine or high seas, (iii) atmosphere, (iv) other natural habitats’ and understands ‘inhabitants’ to include humans; animals, fish, birds or insects; plant species; and other living organisms.

Ecocide can be understood as a crime against peace due to the potential consequences that arise from the damage to, destruction of or loss of these territory(ies) and ecosystem(s), which includes:

1. loss of life, injury to life and severe diminution of enjoyment of life to human and non-human beings;
2. the heightened risk of conflict arising from impact upon human and non-human life which has occurred as a result of the above;
3. adverse impact upon future generations and their ability to survive;
4. the diminution of health and well-being of inhabitants of a given territory and those who live further afield; and or
5. loss of cultural heritage or life (Higgins 2012: 157).

Higgins (2012) argues that the aim of establishing the crime of Ecocide is to prevent war; loss and injury to life; dangerous industrial activity; pollution to all beings; and loss of traditional cultures, hunting grounds and food. The Law of Ecocide would create an international and trans-boundary duty of care; one that imposes an obligation and pre-emptive legal duty of care upon all 'persons of superior responsibility' to prevent the risk of damage to or loss of any ecosystems.

The law of Ecocide's three functions (prevention of risk of destruction of ecosystems; prohibition of decisions that would result in the destruction of ecosystems; and pre-empting decision-making that may lead to significant harm) would affect the Carmichael Project, both in terms of the scope of the operation; for its stakeholders and for repairing the environmental destruction the Project would cause.

Ecocide and the Carmichael Project

The previous two chapters have shown that, fundamentally, states have a responsibility for ensuring the safety and wellbeing of its citizens. This duty suggests that states have a responsibility to exercise extreme caution before embarking on any project which is likely to have the possibility of adverse effects upon the ecosystems concerned. The failure by states to prevent (or take responsibility for) dangerous industrial activities thus becomes the failure of the state to ensure the welfare of the people and the planet. Collusion with corporations that engage in dangerous industrial activities plays a significant role in a states' failure to prevent environmentally harmful projects. The Carmichael Project's harms, according to the scientific community (see Chapter Four), will affect both human and non-human victims, immediately and long-term, nationally in Australia and internationally. Due to these characteristics and the grave scope of the harms, they can be understood as potentially ecocidal. In order to prevent the Carmichael Project, an international law against ecocide would have to contain certain elements that would prevent states from colluding with corporations whose actions would destroy or cause harm to the environment as well as hold those state and corporate officials responsible for the harm.

The ecocidal harms of the Carmichael Project

Since ecocide can be understood as 'the extensive damage to, destruction of or loss of ecosystem(s) of a given territory to such an extent that peaceful enjoyment by the inhabitants of that territory has been or will be severely diminished' (Higgins 2010), studying a resource extraction project such as the Carmichael Project as a crime of potential future ecocide requires

a broader view of crime than what is prescribed by the state. For green criminology, an eco-justice perspective sees harm as informed by notions of egalitarian rights for human and non-human species and the environment (White 2008). This conceptualisation of harm sees the health and wellbeing of the environment and the human and non-human animals and plants as affected by the collusion of state and corporation. Chapter Four presented the harms of the Carmichael Project. These harms are summarised in Table 9.1 below:

Table 9.2 The Ecocidal Harms of the Carmichael Project

Harm to:	Action	Impact
Land	Carmichael Rail passes through 1,334 hectares of 'Good Quality Agricultural Land'	<ul style="list-style-type: none"> • Fragmentation and intrusion of 21 local agricultural properties • Sterilisation of agricultural land in Galilee Basin
Land	Carmichael Rail passes through 155 hectares of 'Strategic Cropping Land'	<ul style="list-style-type: none"> • Sterilisation of land in Avon Downs and Lambing Lagoon • Loss or fragmentation of agricultural land in the Mackay-Whitsunday-Isaac region
Land	Carmichael Rail crosses 88 major and minor waterways	<ul style="list-style-type: none"> • Alters overland water flow • Increases height and duration of floods • Flooding would erode soil, • Endanger native species of plants, and • Degrade farmland and grazing land
Water	Carmichael Mine requires approx. 12,000ML of groundwater for dewatering underground open cut pits	<ul style="list-style-type: none"> • Groundwater reserves needed for pastoral use, domestic and town water supply and ecosystems would be threatened • Permanent changes to groundwater levels and flow direction, hydrochemistry and recharge/discharge of aquifers
Water	Carmichael Mine requires use of groundwater that may be sourced from the Rewan Formation	<ul style="list-style-type: none"> • The Doongmabulla and Mellaluka Springes Complexes would experience water drawdown;

		<ul style="list-style-type: none"> • Loss of vegetation including species of conservation significance
Air	Cumulative emissions of Carmichael Mine would be approx. 77,000,000 tonnes of carbon dioxide in its 60-year lifespan	<ul style="list-style-type: none"> • The carbon budget remaining to stay below 2 degrees Celsius of global warming would be used up by the time less than one-third of the cumulated emissions would have occurred
Great Barrier Reef ecosystem	Carmichael Mine would produce over 2.326 gigatonnes of coal. When burned it would increase CO ₂ concentrations to 450 ppm.	<ul style="list-style-type: none"> • Great Barrier Reef cannot survive; will be bleached
Great Barrier Reef ecosystem	Carmichael Mine's coal will be transported through Great Barrier Reef to India	<ul style="list-style-type: none"> • Dredge oil from boats at risk of spilling into Great Barrier Reef

The harms that would result from the Carmichael Project are permanent and serious. The mining project does not only affect the immediate land and water in the greater Galilee Basin region, but its carbon emissions would also affect the entire world for generations to come and destroy the Great Barrier Reef ecosystem. The Project would also cause harms to human victims. The Wangan and Jagalingou People whose land the Carmichael Mine would be built upon have opposed the Project, citing destruction of their cultural land and heritage. As seen in Chapter Three, the Native Title process that is in place at a federal level has not been properly utilised; Indigenous men and women were not consulted or considered as they legally should have been according to this legislation. Instead, Adani tried to bribe them, silence them with lawsuits and fines, and used loopholes to gain their environmental approvals. The farmers whose land the Carmichael Rail would pass through have also voiced their opposition for the Project. Local towns that rely on the groundwater for every day use as well as farming have opposed giving Adani an unlimited water license, as the Queensland government has sought to do for the Carmichael Mine. The 'Stop Adani' movement has been the largest environmental protest in Australia's history (Beresford 2018) and yet the Carmichael Project has been consistently supported by the state.

One of the reasons the Carmichael Project has been so widely debated in Australia is due to the way the project has been framed. Chapter Six discussed the techniques of neutralisation and denial that the Australian Federal and Queensland State Governments used to justify the Carmichael Project. These scripts allowed for the Carmichael Project to be presented to the public as necessary; *not* harmful; and beneficial. Framing the Project in this manner was required in order for the state to publicly consider and support it, despite climate change science; despite Australia being a signatory to the Paris Agreement; and despite the public's disapproval of the Project.

Ecocide legislation is one way to stop Adani, stop the Carmichael Project and hold states accountable for their collusion with ecocidal corporations on potentially ecocidal resource extraction projects. In order to be effective in preventing the Carmichael Project, ecocide legislation would have to directly address two of the most common scripts used to justify the Carmichael Project (and other similarly harmful projects): denial of responsibility and denial of injury. A Law of Ecocide at the international level, if modelled after Higgins' *Ecocide Act 2010*, uses two legal concepts, superior responsibility and strict liability, that could potentially eliminate the reliance of these narratives that are continually used to rationalise environmentally harmful activities.

Denial of responsibility versus superior responsibility

Denial of responsibility has been a script that persons in position of power use to present the harm as a bi-product of following orders. The corporate structure is well suited for the denial of responsibility due to the chain of command and the corporate veil. Therefore, in order to address the denial of responsibility for grave environmental destruction by persons of power, ecocide legislation would have to contain a clause that establishes responsibility to persons of power within their respective organisations or territories.

The legal concept of 'superior responsibility' presents a direct counter to the denial of responsibility defence that states and corporations use to rid themselves of responsibility for environmentally harmful activities. Superior responsibility is also referred to as 'command responsibility' or the 'Yamashita' or 'Medina' standard, the legal doctrine of hierarchical accountability for war crimes (Isenberg 2013). This legal concept has been established by The Hague Conventions of 1899 and 1907; applied by the United States Supreme Court for atrocities committed by troops under the command of Japanese General Yamashita during WWII; and atrocities committed by troops under the command of U.S. Army Captain Medina in the My Lai Massacre during the Vietnam War (Hendin 2003). At its core, the legal concept of superior responsibility refers to *a superior's duty to supervise subordinates and grants liability for the supervisor's failure to do so* (Bantekas 1999).

In most cases, "reasonable person standard" is considered when determining whether a subordinate committed a wrongful act by following orders (Tobia 2018). The reasonable person standard is meant to be objective – to determine whether a defendant is liable for negligently causing harm, for example, a jury might be asked to evaluate whether the defendant acted with "reasonable care" or the care of a reasonable person (Tobia 2018; Dietrich and Field 2017). However, reasonableness can be understood differently. In Australia, reasonable care is judged by both "reference to the foreseeability... of the risks that have eventuated and the calculus of negligence," which considers the following factors:

- The probability that the harm would occur if care was not taken.
- The likely seriousness of the harm.
- The burden of taking precautions to avoid the harm.
- The social utility of the risk-creating activity in which the person was engaged (Dietrich and Field 2017).

These recommendations have been criticized as unhelpful in describing what is meant by applying an equal standard of care and process of reasoning (Dietrich and Field 2017). Applying the principle of superior responsibility to legislation against ecocide would mean that

all Heads of State, Ministers, CEOs, directors and any other person who has rights over a given territory, regardless of knowledge or intent, would have a clear responsibility for any activity or offence that can be attributed to them as a consequence of their authority. Superior responsibility also extends to any person in a position of superior responsibility within any company or corporation (Bantekas 1999). This would codify the reasonable person standard in a way that is uniform for every case by attaching an unconditional duty of care to the most powerful. Higgins' model law of ecocide, for example, places responsibility for offenses committed by members of staff on those with a position of superior responsibility: '[A] superior is responsible for offences committed by staff under his effective authority, as a result of his failure to take all necessary measures within his power to prevent or repress their commission or to submit the matter to the competent authorities for investigation' (Higgins 2018).

Accordingly, those persons with superior responsibility are liable to prosecution if a member of staff under their authority commits an offense that leads to the commission of the crime of Ecocide. This principle emphasises the importance of prevention and precaution – someone who holds a position of superior responsibility must ensure all necessary measures within their power to prevent or stop any activities that lead to the commission of the crime of Ecocide or they will be held strictly liable under the act, regardless of whether they have any knowledge of the activities that lead to the commission of the crime.

The principle of superior responsibility thus provides a legal counter to the denial of responsibility that has often been cited by politicians or members of corporations after large scale destruction of the environment has been committed by their company or jurisdiction. The principle of superior responsibility would ensure that natural persons cannot hide behind non-natural persons such as corporations and are instead held accountable for the ecocidal actions made at a corporate or government level (Higgins 2010), effectively lifting the corporate veil. In addition, the principle of superior responsibility could extend to third parties (such as agencies or lobbyists). Agencies that lobby on behalf of persons with superior responsibility are 'regarded as aiding, abetting, counselling or procuring the commission of the offence' of Ecocide (Higgins 2018).

In the case of the Carmichael Project, for example, a principle of superior responsibility in ecocide legislation would extend responsibility for the resultant harms (as described in Chapter Four) to those organisations and individuals involved in financing the project. If an Australian bank such as one of the Big Four (Commonwealth Bank, Westpac, ANZ, and NAB) lent Adani the funds necessary to build and operate the Carmichael Mine and Rail, it could be argued that the chief executive of the bank was aiding the commission of the offence of Ecocide. Similarly, if Adani were to receive funding from banks in other countries, such as the China Construction Bank, the executives would be found to have superior responsibility and therefore potentially be guilty of Ecocide.

The principle of superior responsibility has the potential to close, or at least sabotage, the revolving door between industry and politics. In the case of the Carmichael Project, this is perhaps most evident in the debate over whether the North Australian Infrastructure Facility (NAIF) would provide the \$2.4 billion for Adani's endeavour. As Chapters Three and Eight discussed, NAIF was created by Senator Matt Canavan, a vocal Adani supporter, to fund infrastructure projects in North Australia. Some of NAIF's board members – who are responsible for reading and approving loan applications – would personally benefit from the operation of the Carmichael Project because of their positions in companies involved with the mining industry. One board member, for example, was simultaneously the chief executive of a

company that hires out labour and machinery for mining operations and in charge of deciding whether a mining operation should receive NAIF funds in order to become operational. Under the proposed Ecocide Act 2010, this person would have superior responsibility for the potential ecocidal consequences of the Carmichael Project for her role in ‘procuring the commission of the offence’. It would thus be in the government’s best interest if agencies such as the Expert Finance and Insurance Corporation, which supports NAIF, did not have members with conflicts of interest serving on their board.

However, since a corporation is considered to be a ‘non-natural legal entity’, it cannot be found to have *mens rea* and thus it cannot legally be held responsible for actions it did not commit. People working for these corporations enjoy legal immunity since culpability is left with their organisation, which cannot be held responsible for the consequences of actions made on its behalf. Corporate actors have been able to evade legal responsibility for their actions because of this problem of separate corporate identity. Ecocide legislation should address this problem by stating that employees that act ‘on behalf of’ a company can face imprisonment for committing crimes of ecocide, through the principle of superior responsibility, as Higgins’ proposed *Ecocide Act 2010* states:

Where a person of superior responsibility is convicted of an offence under this Act by reason of his position as CEO, director, manager, secretary or a person who was purporting to act in any such capacity for a company, organisation, partnership, or any other legal entity, as a consequence of the conviction the company shall be held jointly responsible for the actions of its servant.

This not only removes the corporate veil, i.e. the legal loophole that states a corporation cannot be of criminal mind, safeguarding the environment from any person that acts on behalf of a corporation but also allows for a corporation to be held responsible for the actions of its employees.

If ecocide legislation with a superior responsibility clause were to have been enacted in 2010, the Carmichael Project would potentially not have been able to be proposed by Adani in the first place. As Chapter Three has outlined, the Adani corporation has a history of environmental destruction around the globe. As early as 2010, the Indian Ministry of Environment and Forests found that Adani’s Mundra Port caused large-scale destruction of mangroves and natural seawater flow, among other environmental violations. Multiple government agencies in India have investigated the Adani corporation for damage to the environment as a result of its industrial activities by. Adani’s business ventures have also been found to have polluted a major river in Zambia. Along with the destruction of a number of ecosystems caused by non-compliance with and disregard for environmental legislation are accounts of Adani’s bribery, price gauging and intimidation of local populations affected by the corporation’s activities. By lifting the corporate veil, superior responsibility in an ecocide law could have been used to try Adani – both the persons of superior responsibility and the company itself – for the crime of Ecocide at the company’s first recorded offence in India in 2010. A guilty verdict could have seen the company dissolved, preventing the bid for the Carmichael Project several years later.

Simply put, the principle of superior responsibility brings accountability to people in positions of power by making explicit that with authority comes responsibility. The Carmichael Project has demonstrated that when a person of authority (due to the power vested in the position of authority) is able to evade responsibility, environmental destruction is not prevented and can be approved to occur without legal or proper consequence. By not excluding agencies or

lobbyists who are – once again, as the Carmichael Project has demonstrated – present, influential and at times benefit from such environmentally destructive projects, the principle of superior responsibility’s broad terms of authority and responsibility complement the Ecocide law’s belief: that dangerous industrial activities and climate disasters are the ultimate responsibility of the people who have the power to prevent such harm at a state and corporate level (Higgins 2018).

Denial of injury versus strict liability

Another script that has been repeated by multiple members of the Australian Federal and Queensland State Governments and Adani is the denial of injury of the Carmichael Project. Whether it was through the net emissions or offsets arguments or the more ‘direct’ climate change denial, the Carmichael Project’s projected greenhouse gas emissions; threat to endangered species; threat to local lands and water resources; and threat to Indigenous culture, have been publicly denied by people in positions of power despite the scientific evidence against their claims.

As Chapter Six discussed, the image of state representatives on public television and other media outlets rejecting climate change and other environmental harms has culminated in the ‘Post-Truth Era’, when statements that correspond with an individual’s agenda are presented as fact while opposing statements are dismissed as propaganda or lies. This agenda of misinformation, blurring the lines between fact and fiction, weakens climate science’s position as unbiased and legitimate. When the individual doing the denying (of climate change, for example) is in a position of power, the effects of a large-scale industrial project like the Carmichael Mine – which are unquestionably harmful to the environment (see Chapter Four) – become a politicized debate.

Ecocide legislation must provide a solution to this problem (i.e. that indisputable harms are able to be denied). Higgins’s conceptualisation of a crime of Ecocide suggests that for the purposes of that definition, ‘the *Paris Agreement* of 4 November 2016 shall be considered to be established premise for prior knowledge by State, corporate or any other entity’s senior person, or any other person of superior responsibility’ (Higgins 2018).

Using the Paris Agreement as a premise for knowledge by persons of superior responsibility strengthens the Ecocide Act’s notion of strict liability. Strict liability is liability for harm set upon a defendant without the need to prove either negligence or fault as long (as it can be proven that it was the defendant caused the harm). The legal concept of strict liability, which imputes liability to a person regardless of their culpability, is able to remove the mental element of the offense and hold a company (the corporate person) liable for its crimes. The Australian Law Reform Commission has argued that strict liability overcomes ‘a knowledge of law problem and may be appropriate to ensure the integrity of a financial or corporate regulatory regime’ (ALRC 2018).

Legal recognition – through ecocide legislation such as Higgins’ Ecocide Act – that knowingly emitting greenhouse gases is an act of ecocide allows for the prevention and punishment for such damages. While there is currently no legal mechanism to hold anyone accountable for greenhouse gas emissions, the Paris Agreement was a step forward. 184 Parties have ratified the Paris Agreement, whose central aim is ‘to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius

above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius' (UN 2018).

As a signatory to the treaty, Australia publicly acknowledges that it is required to strengthen its efforts against global warming and report their 'nationally determined contributions' of greenhouse gas emissions every five years (UN 2018). By signing the Paris Agreement, the countries also admit to concepts such as human made global warming. However, despite signing the Agreement, the Australian Government has supported Adani's bid to build one of the world's largest coal mines in Queensland. These actions are contradictory, but due to the 'soft-law' nature of the Paris Agreement and the lack of a crime of ecocide under International Criminal Law, the Carmichael Project has been able to legally reach the pre-development stage. An Ecocide Act, if passed at an international level, could use Australia's signing of the Paris Agreement – as well as the contents of the document which acknowledge the 'injury' caused by greenhouse gas emissions – to support the claim that the government has committed ecocide.

Furthermore, the 'net emissions' argument would not be able to be used if an ecocide law of strict liability existed. Australia's Environment Minister argued in the Federal Court of Brisbane that in order to prove that emissions from the Carmichael Project would result in higher global greenhouse gas levels, it must be proven that the emissions from the mine would not be offset by carbon-reducing initiatives elsewhere in the world. By using the Paris Agreement (or any future international agreement on climate change) as 'proof of knowledge' of the need and the duty to reduce carbon emissions, ecocide legislation could effectively counter the net emissions argument. The Paris Agreement mandates states to reduce their GHGs. The Minister's justification for opening the mine on the basis that GHG-reducing initiatives will be taken up elsewhere is illogical, as Australia had also signed to reduce their emissions.

The environmental harm that state and corporate officials have denied in order to justify their positions of support for the Carmichael Project are the same as those acknowledged (as real, problematic, and in need of managing) by Australian state by signing the Paris Agreement. In other words, through ecocide legislation, Australia's simultaneous signature and commitment to the Paris Agreement while approving the Carmichael Project would implicate these persons with superior responsibility as guilty of ecocide.

Sentencing and reparative justice

It can be said that there are two 'types' of ecocide: human induced or 'ascertainable ecocide' and ecocide by 'other causes' or 'non-ascertainable ecocide' (Short 2016). Ascertainable ecocide is ecocide caused by human agency, where an individual responsible for the activity can be identified. Corporate-induced ecocide, such as the ecological disaster that resulted from resource extraction in the Alberta tar sands is an example. Non-ascertainable ecocide occurs when an individual responsible for the activity cannot be identified. Catastrophic events such as flooding or earthquakes are examples of ecocide that cannot be stopped. However, as Short (2016: 2014) states, 'when human-induced ecocides, which destroy carbon sinks and create escalating carbon emissions, are prevented, it is possible that this could reduce the frequency of climatic extremes and mitigate the negative impacts of naturally occurring ecocides....'.

This distinction allows for a legal framework to be created for pre-empting, preventing, and prohibiting ecocide. Naturally occurring ecocide (as a result of a natural disaster, for example) becomes a responsibility of governments. Human-caused ecocide, on the other hand, becomes

a responsibility of governments *and corporations*, which would be legally bound to ensure that any business practice that causes extensive damage or destruction of an ecosystem is put to an end (Higgins et al. 2013). Higgins' proposal thus creates a legal duty of care for the Earth. In binding nations to act *before* the destruction of an ecosystem occurs, naturally occurring ecocide and human-caused ecocide can be pre-empted. In binding nations to act *after* the destruction of an ecosystem occurs, naturally occurring ecocide and human-caused ecocide can be remedied.

The Carmichael Project's environmental destruction would potentially be ecocidal and therefore ecocide legislation may have prevented its approval. However, if Adani and the Australian Government were to approve the Project and it began operating before being prosecuted for the crime of Ecocide, a method of 'repairing' the harm done must also be available. Reparative justice can impose 'repairing harm' upon offenders 'without necessarily involving consensual agreement and/or conferencing methods of negotiation' (White 2017b: 130). Reparative justice is useful in cases of crimes of the powerful since changes to company practices, especially those involving profit margins, requires sanctions that respond to scale of the activities of the corporation. Ecocide legislation should grant courts power to assure that the guilty party restores the affected territories to their pre-ecocide state (Higgins 2018). White (2017b: 130) suggests the reparative justice approach can provide 'greater deterrent effect than the usual deterrence-based approaches precisely because of what it demands of offenders by way of public exposure, enforceable undertakings, and substantial commitments of time and resources to environmental remediation.' Reparative justice, as a method of remedy, can also benefit the victims of environmental incidents, including Indigenous Communities. The 2007 case *Garrett v Williams*, demonstrates how reparative justice can also benefit the victims of environmental incidents, including Indigenous Communities, in particular instances such as when the mining company is from the local community. In that case, Pinnacle Mines Pty Ltd was charged with several offenses, including causing damage to a protected Aboriginal place. Under the direction of a facilitator, the sole director of the mining company paid a monetary penalty fee but also was able to talk to a representative of the Aboriginal Land Council about the connection of traditional owners to the land, which left him feeling 'foolish' and 'remorseful' (White 2015: 47).

Lastly, an ecocide law must discuss jurisdiction. This is a pertinent issue in the Carmichael case for a number of reasons. Most obviously, Adani is an Indian multinational corporation seeking to conduct its business outside of its national boundaries, operating a coal mine and rail in Queensland, Australia. The components of the project, i.e. the mine and rail, are physically in Queensland and would therefore be destructive to the immediate surrounding environment and plant and animal species in Australia. The coal from the mine would, however, be burned in India, which caused legal questions regarding origin of greenhouse gas emissions in court cases. The Australian state has been able to legally evade responsibility for these emissions through its classification system (Scope 1, 2, and 3 emissions – see chapters Four and Six). Therefore, an Ecocide Act should be multi-jurisdictional. Wherever a crime of Ecocide is committed, the offender would be liable to persecution at an international level. As their name suggests, multinational corporations operate all over the world. A multijurisdictional Ecocide Act would close the loophole that many corporations (e.g. Union Carbide in Bhopal, India or Adani in Queensland, Australia) have utilised in the past when their activities abroad resulted in environmental destruction.

Conclusion

This chapter discussed the history of the concept of ecocide, the destruction of the environment, from its origins in the Vietnam War to its more recent criminological conceptualisation and Higgins' draft Ecocide Act. The chapter then summarised the harms of the proposed Carmichael Project. The Queensland and Federal governments have placed thousands of hectares of farmland in threat of permanent sterilisation by allowing Adani's proposed rail line to pass through high quality agricultural land. The Carmichael Mine would also use significant volumes of water in order to dewater underground mines and open cut pits, resulting in permanent changes to groundwater levels and affecting drainage into rivers and wetlands. In addition, the cumulative CO₂ emissions related to the Carmichael Mine would be the highest in the Southern Hemisphere and among the highest in the world for an individual project. Yet we already know that climate changes that affect the Great Barrier Reef include rising sea and air temperatures, ocean acidification, nutrient enrichment, altered light levels, more extreme weather events, changes to ocean circulation, and sea-level rise (Morrison and Hughes 2016).

Placed within the larger global context of climate change, the scale and impact of this project fits neatly with the concept of ecocide. The role of the federal and state governments is crucial to the project, and in propelling it forward regardless of manifest negative environmental consequences. In other words, the potential ecocidal consequences of the Carmichael Project stem directly from the nexus between business and government.

Use of the term ecocide should be seen as a political intervention, one that attempts to allocate blame and assign the label of wrongdoing to particular actors and specific kinds of acts and omissions. In this sense, it is a framing device that provides a useful short-hand conceptual tool to describe gross harms stemming from real-world activities. Those who contribute the most to global warming and wide spread environmental destruction are amongst those perpetrators firmly in the sights of those who view ecocide as the most important – and perhaps the most violent – crime of the 21st century.

A legal framework for the crime of ecocide could prevent, prohibit and pre-empt such environmental destruction. This chapter highlighted the main legal concepts that should be present in such an act, such as the principle of superior responsibility and strict liability, that would bring accountability to actions that contribute to the destruction of an ecosystem. A proper law of ecocide would also be one of strict liability. Limiting a law of ecocide to a crime of intent would be akin to limiting a law of ecocide to periods of war. History has shown that during war, states or corporations may set out to destroy the environment of the opposing side (or, commit ecocide). Intent is more easily proven during war since the connection between destroying the opponent's environment and military benefit can be easily drawn. A state or corporation's techniques of neutralising and denying harm, such as that regarding the Carmichael Project, make it difficult to prove that intent during peacetime, especially if the ecocide is or would be committed 'at home'. Put another way, ecocide can be understood as environmental warfare even in the absence of an official war. As a type of environmental crime that is inherently perpetuated by the powerful, ecocide occurs when the destruction of the environment is the cost of states and corporations engaging in 'business as usual'.

This thesis opened by describing the players – those with 'superior responsibility' and decision-making powers over ecosystems. The Carmichael Project was then introduced; the consequences it would have on the environment and its contribution to climate change detailed. The justifications and denials of these harms were presented and the collusion between state

and corporation was detailed. This chapter presented the concept and crime of Ecocide as a potential solution to some of what the previous chapters discussed. However, Ecocide is not the *only* solution and passing a law against it at an international level has unsurprisingly been met with resistance by the states who commit ecocide themselves. The next and last chapter describes some changes Australia can implement nationally in order to prevent future industrial projects similar to the Carmichael and to safeguard the environment.

Chapter Ten

CONCLUSION

“The carbon budget is clear and compelling. To stay within the 2°C limit, the trend of increasing global emissions must be slowed and halted in the next few years and emissions must be trending downwards by 2020 at the latest. Investments in and installations of renewable energy must therefore increase rapidly. And, critically, most of the known fossil fuel reserves must remain in the ground” (The Commonwealth of Australia 2013b: 87).

“I’ve studied every industry in Australia and I’ve never seen collusion between governments and industry in the way I’ve seen in coal mining. It’s the revolving door of government and mining in Australia. They are just way too in bed with each other” (Buckley and Nicholas 2017).

Introduction

Transparency International released its 2017 Corruption Perceptions Index in February 2018. Australia, ranked 13th, was one of the countries listed in decline – that is, becoming ‘more corrupt’. The state’s score in 2017 (77) continued the downward trend from its 2012 high score of 85; a number historically awarded to mostly Nordic countries (Transparency International 2017). Transparency International cited a wide range of factors that have contributed to Australia’s score, including “inappropriate industry lobbying in large-scale projects such as mining” and “revolving doors and a culture of mateship” (Lucas 2018).

As this thesis has demonstrated, the Carmichael Coal Mine and Rail Project has been approved by the Queensland State and Australian Federal Governments due to some of the same factors that Transparency International cites as evidence that Australia has become a more corrupt state. From the board of directors on NAIF, a potential source of funding for the Project, to the Environment Ministers, who consistently approved the Project despite their duty to protect the environment, those who have previously worked for the mining industry are often later in positions of power to make decisions to approve future mines. Media outlets such as television, radio, and written news articles have been used to cast shadows of doubt about the Project’s environmental harms using clever slogans and inspiring statistics that promise economic benefits. Climate science has been denied and activists have been ‘othered’ and portrayed as anti-jobs. Combined, these tactics have almost led to one of the world’s largest coalmines being built in the wake of the Paris Agreement and the IPCC Reports on climate change and despite the majority of Australians rejecting Adani’s proposal in lieu of meaningful climate policy.

Collusion between states and the mining industry threatens democracy. The Carmichael Project serves as a poignant example of this fact. Although the state will always be a site of contestation, a democratic state thrives when citizens of a state elect leaders to represent their interests and fails when those leaders’ positions are influenced through corporate donations and lobbying. The setting for the story of the Carmichael Project is a democracy weakened by state corporate crime.

In this final chapter of my thesis, I highlight some of the ‘spaces’ of Australian policies and processes dealing with mining approvals that are susceptible to corruption, as demonstrated by my case study of the Carmichael Project. I also make some suggestions for how these spaces can be improved to prevent them from being used in the future. These small but significant changes have the potential to strengthen Australia’s democracy and, along with an international law of Ecocide, can safeguard our environment from further degradation from industrial projects.

Democracy, collusion, and mining

Throughout my study of the Carmichael Project, I wanted to find the spaces in the Australian approvals process that are vulnerable to corruption by and with the mining industry. A starting point for the thesis was to investigate the people – from the namesake of the Adani corporation to the less obvious stakeholders involved in PR firms behind the public campaigns to the NAIF board of directors wanting to finance the Mine. By finding out who they are, who they work for and work with, I was able to discover who benefitted from the mining approval decisions. The very fact that I could answer this question with a list of names (as opposed to reaching the conclusion that ‘the Australian (or global) public’ would benefit) was the first indication of corruption and, by extension, a weakened democracy.

Like any other infrastructure project or decision made by state representatives on behalf of its citizens, mining approvals must prioritise public interest. Decision-makers should not personally benefit from their decision to approve a mine and potential conflicts of interest must be declared and controlled. In Australia, however, politicians and government officials are not legally obligated to declare their assets or interests in mining companies (Transparency International 2017). As a result, the public is unable to know who owns and profits from the companies that are seeking to obtain a mining license. The Panama Papers revealed the scale of corporations that hold offshore bank accounts in countries such as Panama in order to conceal their wealth and pay negligible (if any) amount of tax, and the Adani family were among those named (ICIJ 2019).

The Carmichael case also highlighted the danger of close relationships between senior politicians and the fossil fuel industry. For example, during the Queensland election campaign in 2017 it was revealed that Cameron Milner, the former Queensland secretary of the ALP and chief of staff to Federal Opposition Leader Bill Shorten was the head of the lobbying firm Next Level. Next Level was hired by Adani to provide lobbying services in Queensland in February 2015 and made 33 lobbying contacts for Adani – more than double the contact reported by any lobbyist on behalf of any other client (Long 2017). Milner wasn't the only conflict of interest, as this thesis demonstrated. Conflicts of interest involved the NAIF board and Senator Matt Canavan, among others that are detailed in Chapter Eight. These links between government and the coal industry can be said to have formed when climate change emerged as a public issue in the 1990s and multinational mining corporations operating in Australia formed partnerships with the media and prominent think tanks to gather political support for the promotion of coal (Beresford 2018). The earliest evidence of these links emerged in June 2004, with the Howard government's white paper, 'Securing Australia's Energy Future', which named coal as Australia's key future source of energy. This was in line with the Australian Coal Association's (ACA) position. It was later discovered that the ACA lobbied Howard and the white paper 'was exactly what the industry asked for' (Baker 2015).

One potential solution for Queensland would be to imitate the 'integrity system' developed by the Department of Mines and Petroleum in Western Australia. The integrity system has been shown to help 'prevent and mitigate the risk of public servants and politicians putting private sector interests before public interest' (Langley 2017: 17). A similar system in Queensland could establish codes of conduct; whistle-blower protections; and accountability through auditors, ombudsmen, and law enforcement authorities for the investigation and prosecution of corruption (Transparency International 2017: 28).

In short, any potential conflicts of interest that could result in decisions (made on behalf of the public by decision-makers) made to personally benefit the decision-maker should be disclosed. Another potential solution, according to Transparency International (2017) would be to create a public register of decision-makers' assets and interests in the mining industry. However, 'conflicts of interest' do not necessarily have to take the form of lobbyists. Conflicts of interest can also occur when policy-makers prioritise the interests of the private sector over those of the public. The Carmichael case involved a number of people in positions of power within the state who were focused on securing investment in mining at the expense of environmental, social, or even other economic interests. One example was the Queensland Coordinator General's role in approving the Project.

In Queensland, the role of the Coordinator-General is to promote investment and economic development in the state and to facilitate the approvals process for infrastructure projects and “significant” mines. These competing responsibilities have been criticised as potentially influencing a Coordinator-General’s decision-making power over the environmental approvals process – ‘a risk that is exacerbated by the lack of guiding decision-making criteria in the legislation’ (McGrath 2003). The Coordinator-General had given the Carmichael Project some of the first ‘green lights’ despite its environmental impacts. Someone who is responsible for investment and infrastructure projects of a state should not have been in a position to grant environmental approvals – this conflict of interest has resulted in biased decisions that favour the mining industry and put environmental concerns secondary to economic development.

Corporations seeking to mine in Australia should also be held accountable for the environmental and social impacts of their projects. This has not been the case for Australia’s environmental authorities. For example, the Land Court case cited in Chapter Three revealed that Adani had overstated the number of jobs that would be created by the Carmichael Mine. According to expert advice, Adani’s claim of 10,000 full-time jobs was inaccurate and only about 1,200 jobs would be produced. Despite this finding, Adani continued to cite the 10,000 figure publicly as a justification for the Project and testament to its economic value. Transparency International’s 2017 research indicated that most government authorities lacked the capacity to verify the contents of a company’s environmental and social impact assessments and that this increases the risk that deliberately misleading statements or omissions are provided. Adani also misled the Australian Government by not disclosing the company’s environmental transgressions in Zambia, when Adani Australia CEO oversaw the mining project that resulted in the destruction of the Kafue River. A solution to companies’ misleading impact statements might lie with the state establishing the capacity needed to verify environmental and social impact statements using clear and transparent criteria (Transparency International 2017).

Finally, a strong democracy requires mining approvals to be negotiated with genuine consultation with communities. There are a number of ways Australia can improve its community consultation process. First, binding requirements for consultations must be set out, so that mining companies have a legal duty to do so. This would prevent consultations from being bypassed; conducted superficially as a formality; or for community recommendations to be ignored. Second, community leaders must represent community interests. In the Carmichael case, some members of the Wangan and Jagalingou traditional owners were given a monetary award in exchange for their approval of Adani’s land use for the mine, despite others opposing – and later litigating against – the project (see Chapter Three). Timing is another important factor in a consultation’s legitimacy. Community engagement should not take place during the final stages of the mining approval process as there is a risk of the project (and its conditions) to be taken as a given, allowing project proponents to view consultations as a formality (Transparency International 2017: 76). Consultations with the Wangan and Jagalingou People for the land use of the Galilee Basin in the Carmichael Mine case took place after several environmental approvals were already granted to Adani. This late-stage community engagement may have contributed to the neglect of the Traditional Owners’ concerns regarding the Carmichael Project’s environmental destruction, which resulted in several further litigations against Adani.

Transparency International (2017: 9) found ‘countries with robust approvals regimes can attract higher quality investments from major players who avoid corruption-prone jurisdictions, improve economic returns to their citizens and reduce rates of social conflict around mining

projects...The social licence of the mining sector depends first and foremost on a transparent and accountable approvals regime that effectively controls corruption risks.’ While Australia does not currently have a clear, legally binding process and standards providing guidance on what constitutes appropriate consultation, various global institutions have developed best practice standards, such as the ICMM’s *Good Practice Guidance on Indigenous Peoples and Mining* (2015) and the OECD’s *Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector* (2017). These guidelines are, however, voluntary, emphasising the importance of a legally binding framework at the national level.

Conclusion

The Carmichael Mine and Rail Project is an example of a potential future ecocide perpetrated by the Australian state and Adani corporation. Its approval is the result of state collusion with a corporation to exploit public land and natural resources for private profit. Its resulting harms to the environment and to the Indigenous owners of the land have been denied or externalised and climate change science has been ignored. Environmental impact statements that have been found by NGOs; activists; or journalists to contain false or incomplete information have been presented as factual to the Australian and international public in order to justify the government’s decisions about the use of and harms to land, air, water, and energy.

At the time of my writing, it has been over nine years since Adani first purchased the coal tenement in the Galilee Basin for Australia’s newest and largest mining project, and the Carmichael Mine and Rail Project has not begun operating. The activist movement against Adani continues to be the largest environmental movement in Australian history, with NGOs and individual citizens around the world continuing to organise against, protest and legally challenge environmentally harmful industrial activities. Most recently, a “#Stop Adani” convoy, led by former Greens politician and environmental activist Bob Brown has travelled from Hobart to the Adani mining site in Queensland, gathering supporters along the way.

Together with these civil movements, an international ecocide law would hold states and corporations accountable for the destruction of the environment. Ecocide law is an important legal component that can assist in the prevention and prosecution of massive environmental damage and destruction. It would move environmental law away from its current ‘soft-law’ state by addressing the gaps in accountability and governance of current international environmental agreements. In the meantime, judgements such as that given by Judge Brian Preston in the New South Wales Land and Environment Court earlier in 2019, striking down the building of a coal mine approximately half of the size of the proposed Carmichael Mine, highlights the importance of leaving coal in the ground (*Gloucester Resources Limited v Minister for Planning* [2019] NSWLEC 7):

In short, an open cut coal mine in this part of the Gloucester Valley would be in the wrong place at the wrong time. Wrong place because an open cut coal mine in this scenic and cultural landscape, proximate to many people’s homes and farms, will cause significant planning, amenity, visual and social impacts. Wrong time because the GHG emissions of the coal mine and its coal product will increase global total concentrations of GHGs at a time when what is now urgently needed, in order to meet generally agreed climate targets, is a rapid and deep decrease in GHG emissions. These dire consequences should be avoided. The Project should be refused.

Informed decision making around air, water, land and energy requires the close consideration of climate change and must be on the side of precaution. Those who pretend climate change is not happening and climate policy should not take precedence over immediate economic gain are risking the wellbeing of our planet for their own specific sectoral interests. Recent environmental movements have demonstrated that these ‘carbon criminals’, as White (2014a) refers to them, are in the minority.

The Stop Adani movement has brought attention to the link between environmental issues and democracy. When the environment is at risk, democracy is at risk. This thesis has demonstrated that both risks are real. In demonstrating this, I have drawn upon concepts such as environmental harm, state-corporate crime and ecocide. Fundamentally, the Carmichael Mine and Rail Project provides an exemplar of crimes of the powerful as a process and practice. Research and analysis of this nature is important for exposing wrongdoing and providing the impetus for reform and social action. As 16-year-old climate activist and leader of the School Strike for Climate, Greta Thunberg, says, “Activism works. So act.”

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